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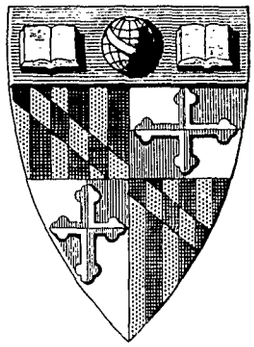
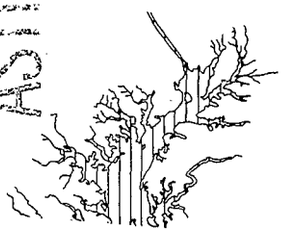


CHESAPEAKE BAY INSTITUTE
The Johns Hopkins University

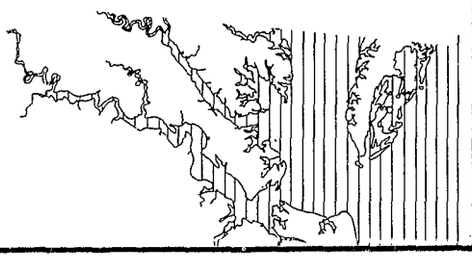


TECHNICAL REPORT XIX

SURFACE WAVES AT SHORT FETCHES AND LOW WIND SPEEDS — A FIELD STUDY

by Blair Kinsman

Volume 3



Reference 60-1 May 1960

CHESAPEAKE BAY INSTITUTE
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TECHNICAL REPORT XIX

SURFACE WAVES AT SHORT FETCHES AND LOW WIND SPEEDS
A FIELD STUDY

Volume 3

Appendices III and IV

by

Blair Kinsman

"Merely corroborative detail, intended to give artistic verisimilitude to an otherwise bald and unconvincing narrative."

W. S. Gilbert, The Mikado

This report contains results of work carried out for the Office of Naval Research of the Department of the Navy under research project NR 083-016, Contract Nonr 248(20).

This report does not necessarily constitute final publication of the material presented.

Reference 60-1
May 1960

D. W. Pritchard
Director

Volume 3

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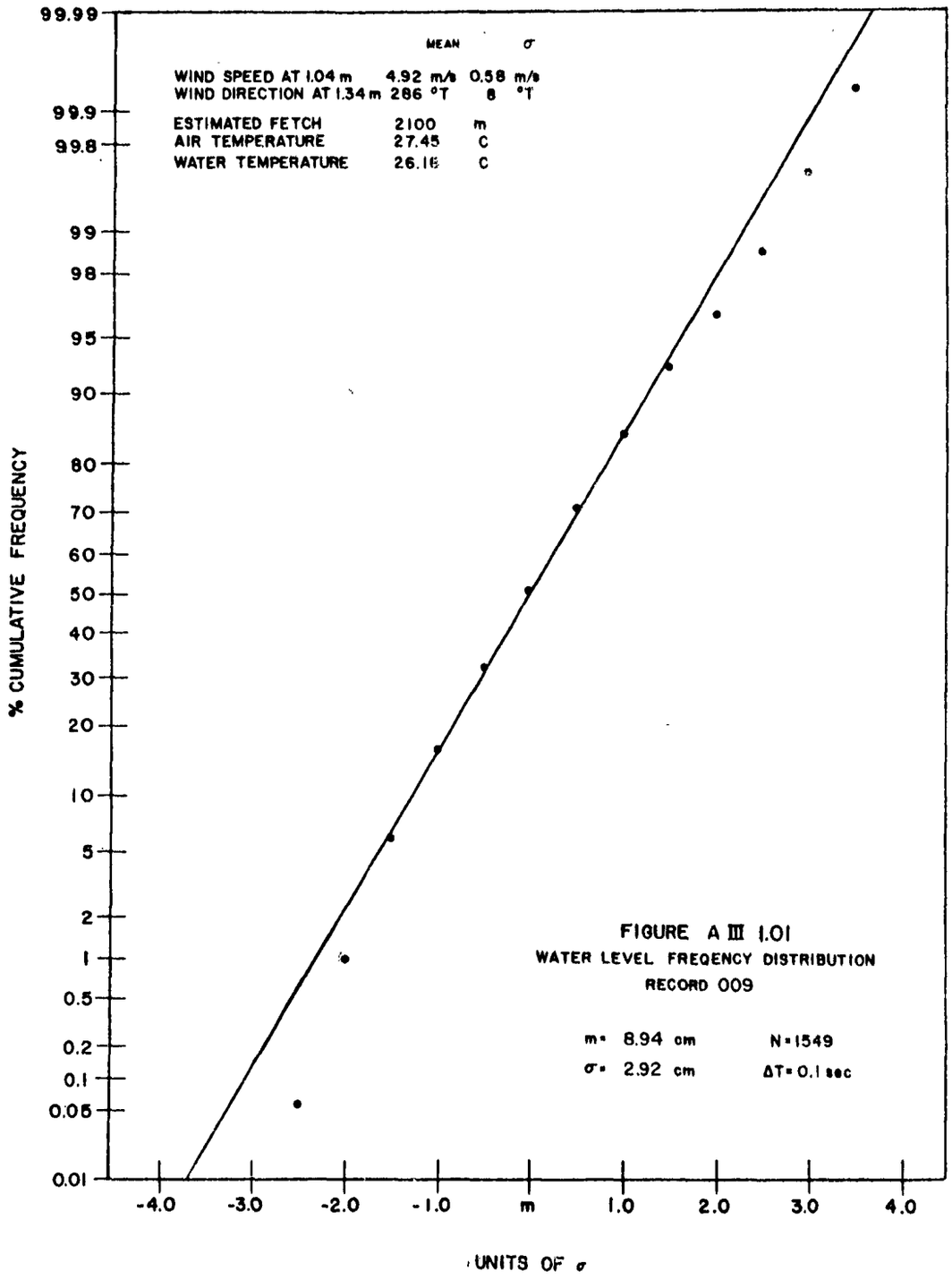
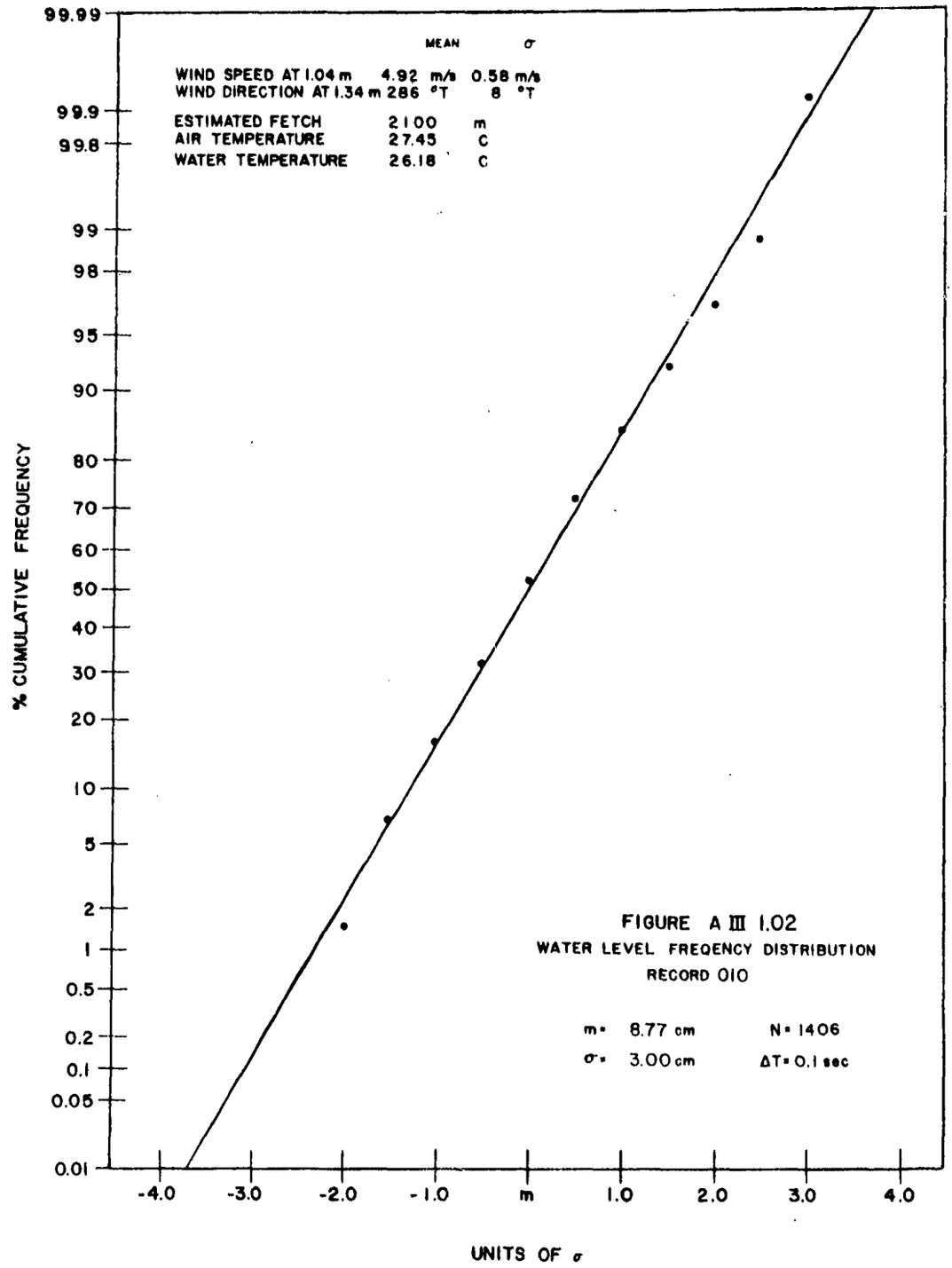
APPENDIX III THE DENSITY FUNCTION OF THE WATER SURFACE

Plots and Tables of the Frequency Distributions of Water Heights

Figures AIII 1.01 to AIII 1.24 on pages AIII-3 to AIII-26 show the frequency expressed as a cumulative per cent ordinate versus the distance from mean water level in units of the standard deviation for each record. The line entered is the Gaussian.

Tables AIII 1.01 to AIII 1.24 on pages AIII-27 to AIII-38 contain the results of the $1/2$-σ frequency-sort computer program. Each sort interval is $\sigma/2$ long; the interval to which the count belongs is indicated by giving the point farthest from the mean. Thus a count identified by 1.5σ is the count for the interval from 1.0σ to 1.5σ, and that for -0.5σ is the count for the interval from the mean to -0.5σ. The computer program was arranged so that the value of σ used was of a higher precision than the data points to be sorted, so that no ambiguity arises at interval end points.


MEAN σ
WIND SPEED AT 1.04 m 4.92 m/s 0.58 m/s
WIND DIRECTION AT 1.34 m 286 °T 8 °T
ESTIMATED FETCH 2100 m
AIR TEMPERATURE 27.45 C
WATER TEMPERATURE 26.16 C
% CUMULATIVE FREQUENCY
99.99
99.9
99.8
99
98
95
90
80
70
60
50
40
30
20
10
5
2
1
0.5
0.2
0.1
0.05
0.01
-4.0
-3.0
-2.0
-1.0
m
1.0
2.0
3.0
4.0
UNITS OF σ
FIGURE A III 1.01
WATER LEVEL FREQENCY DISTRIBUTION
RECORD 009
m= 8.94 cm N=1549
σ= 2.92 cm ΔT=0.1 sec


MEAN σ
WIND SPEED AT 1.04 m 4.92 m/s 0.58 m/s
WIND DIRECTION AT 1.34 m 286 °T 8 °T
ESTIMATED FETCH 2100 m
AIR TEMPERATURE 27.45 C
WATER TEMPERATURE 26.18 C
% CUMULATIVE FREQUENCY
99.99
99.9
99.8
99
98
95
90
80
70
60
50
40
30
20
10
5
2
1
0.5
0.2
0.1
0.05
0.01
-4.0
-3.0
-2.0
-1.0
m
1.0
2.0
3.0
4.0
UNITS OF σ
FIGURE A III 1.02
WATER LEVEL FREQENCY DISTRIBUTION
RECORD 010
m= 8.77 cm N= 1406
σ= 3.00 cm ΔT= 0.1 sec

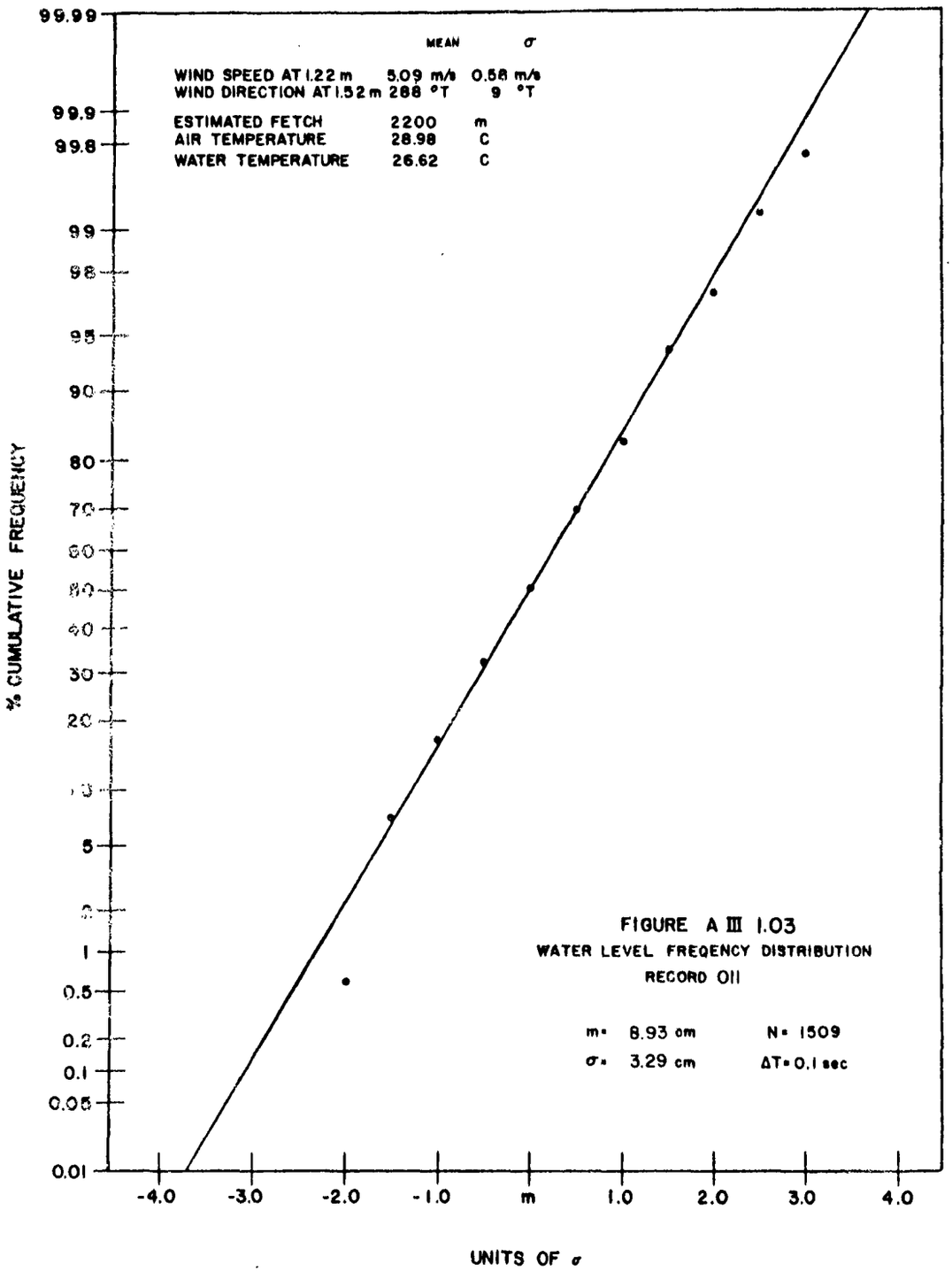
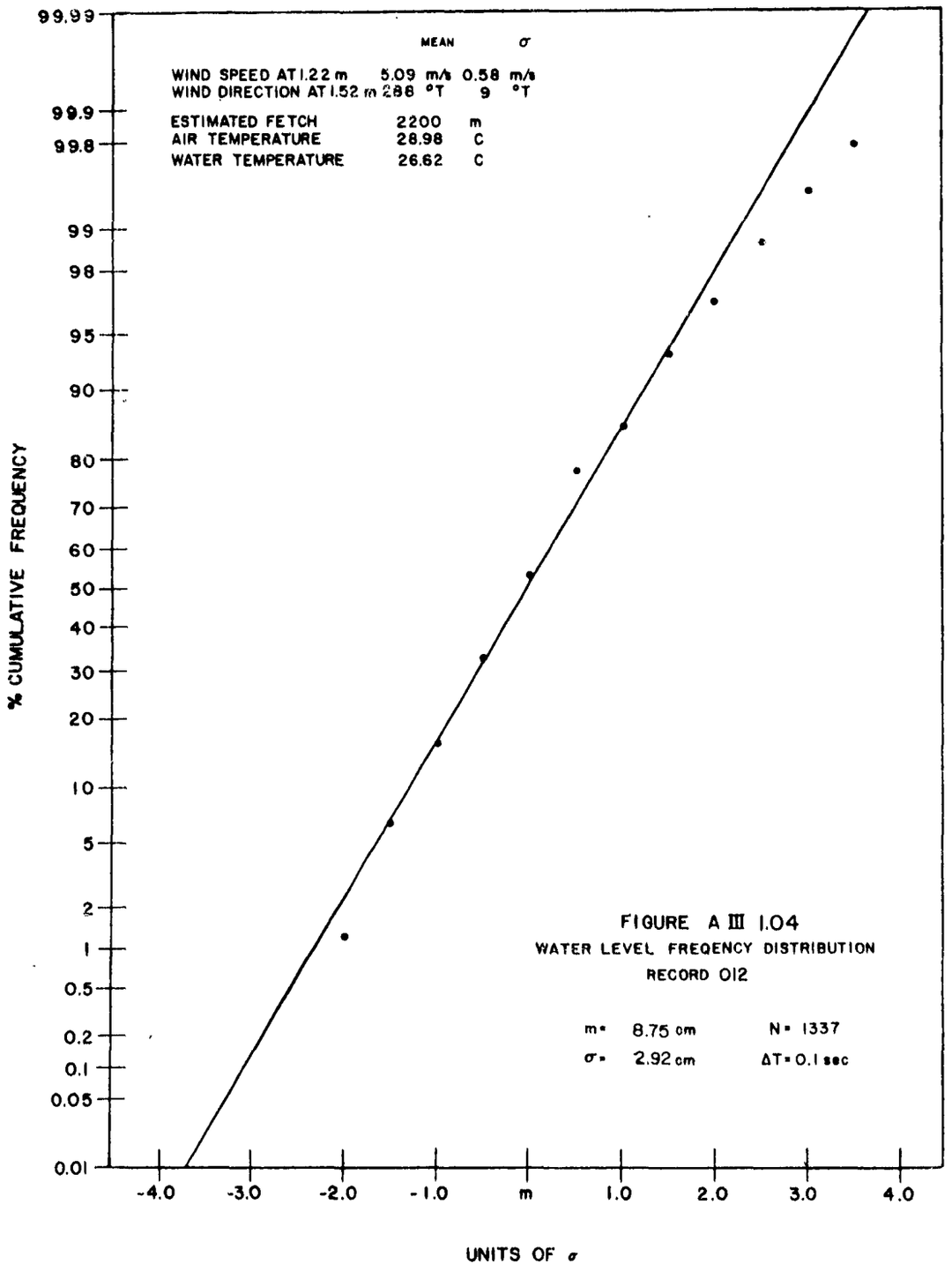
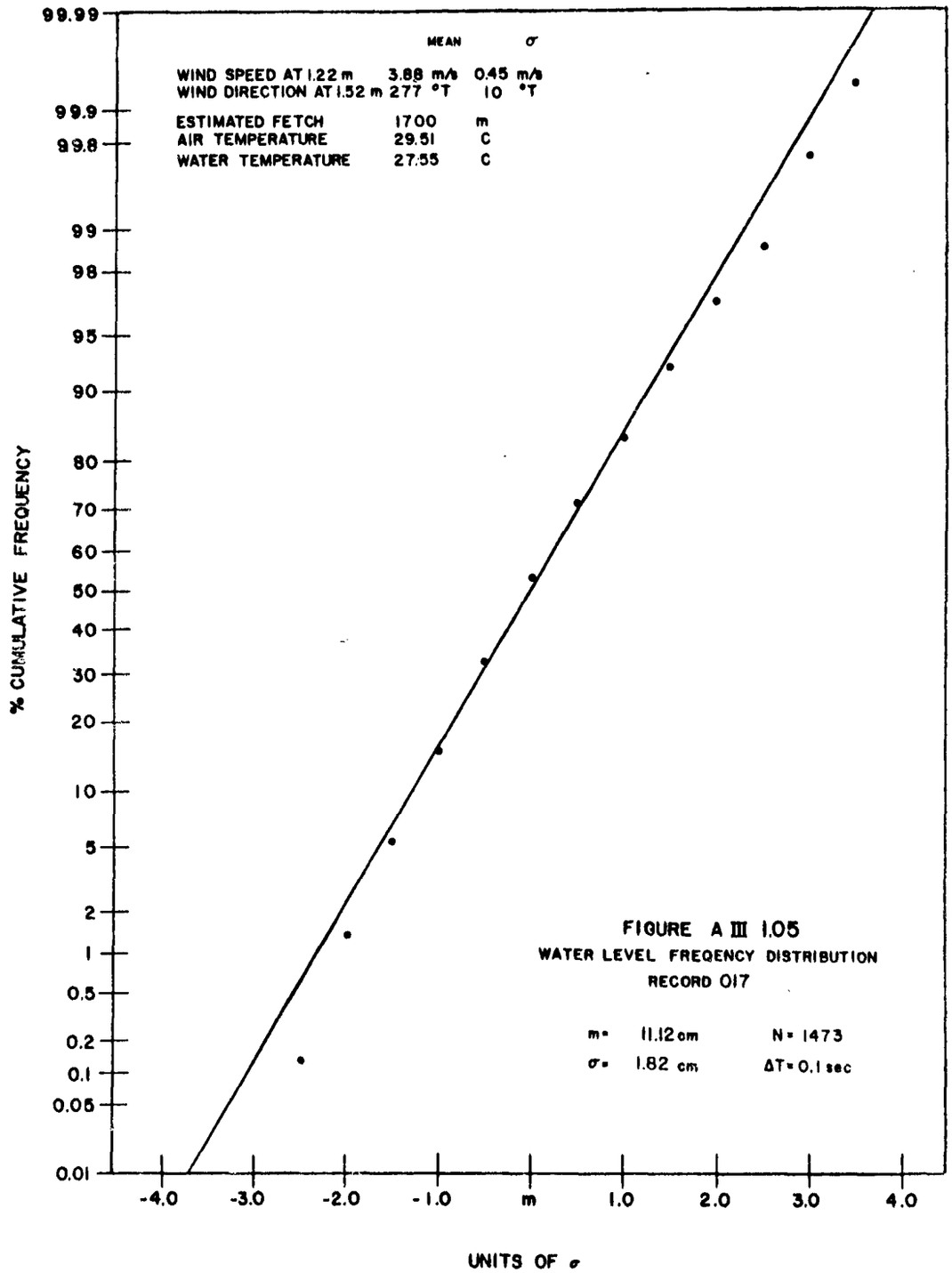
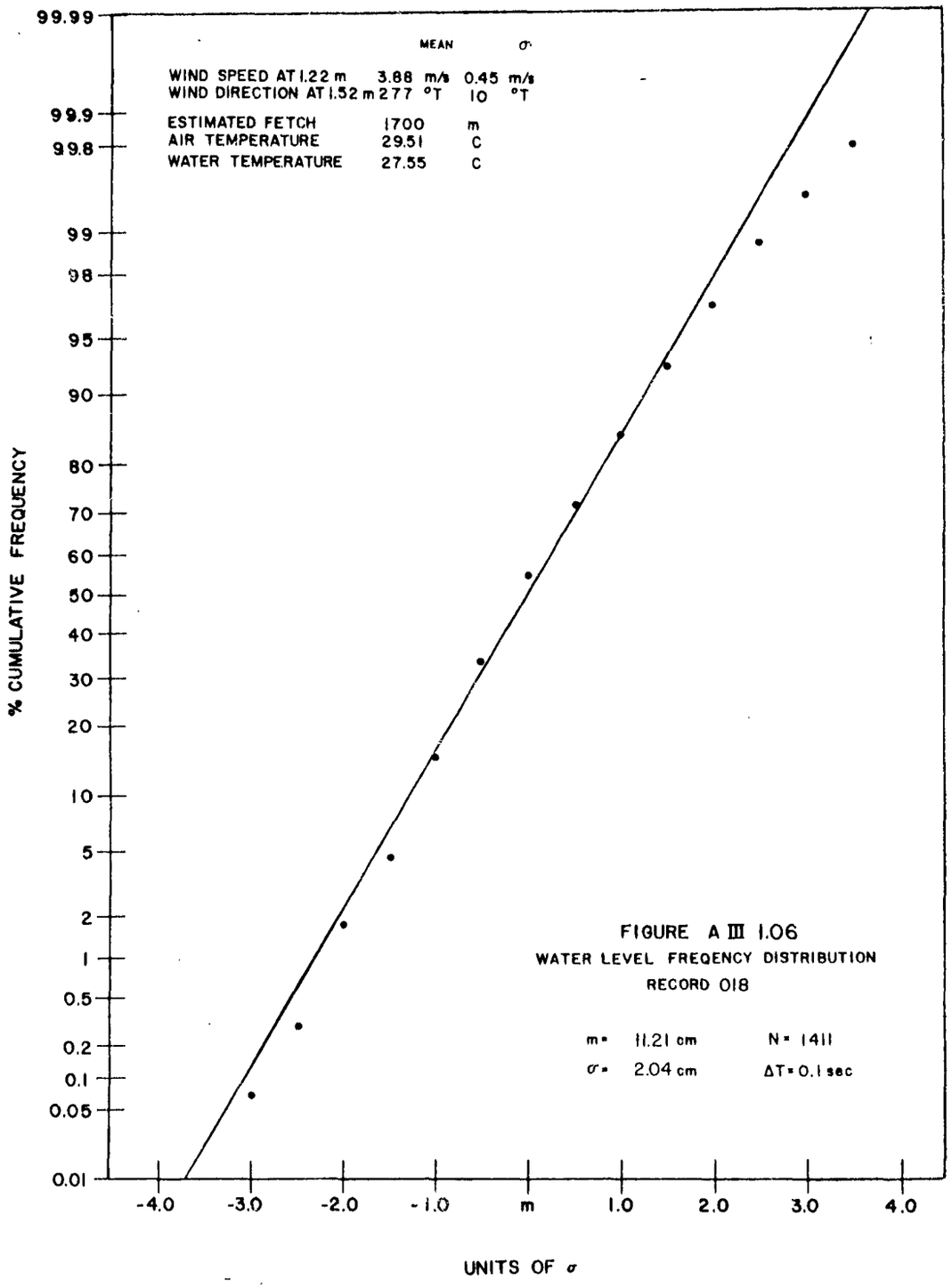
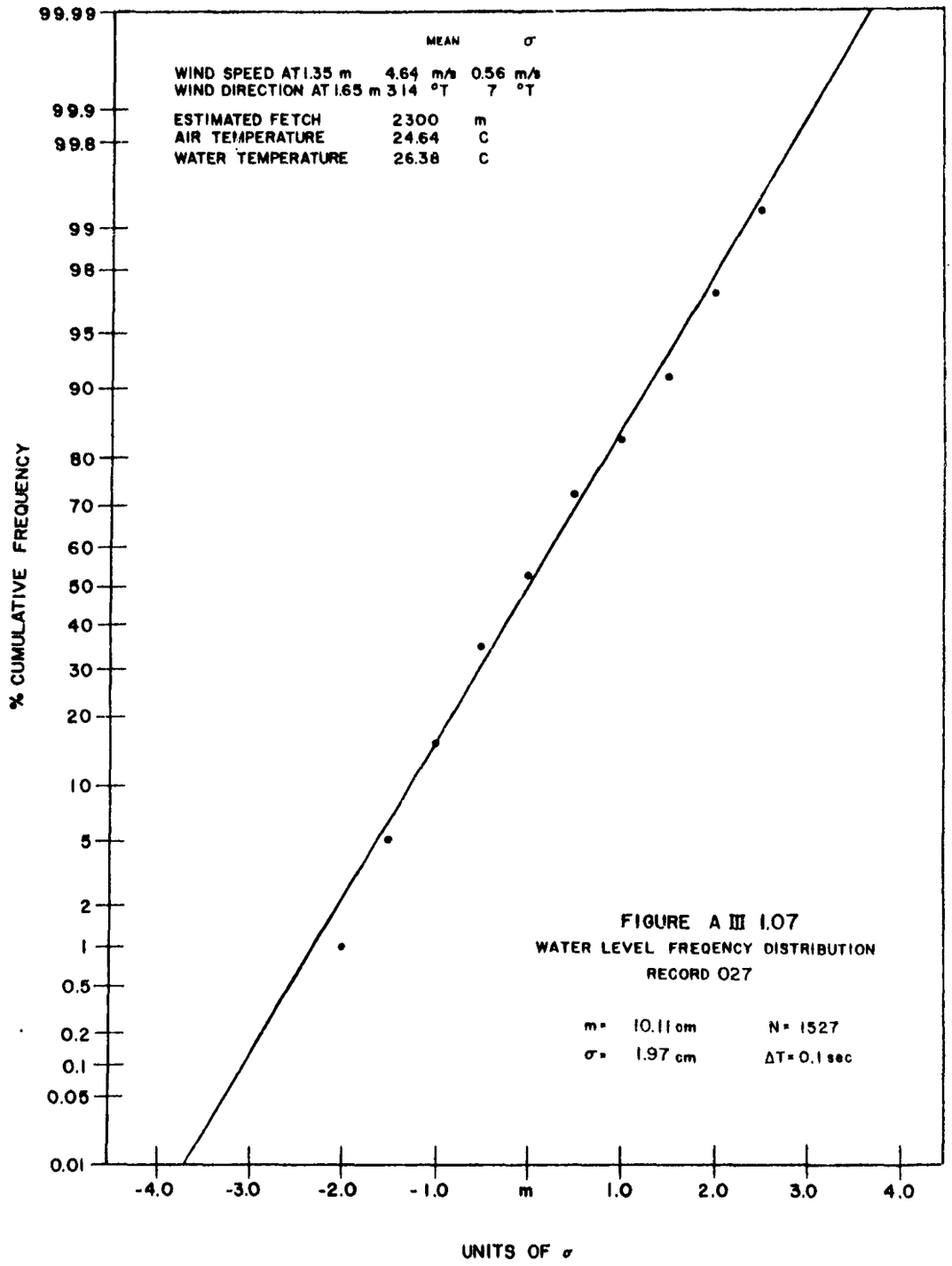


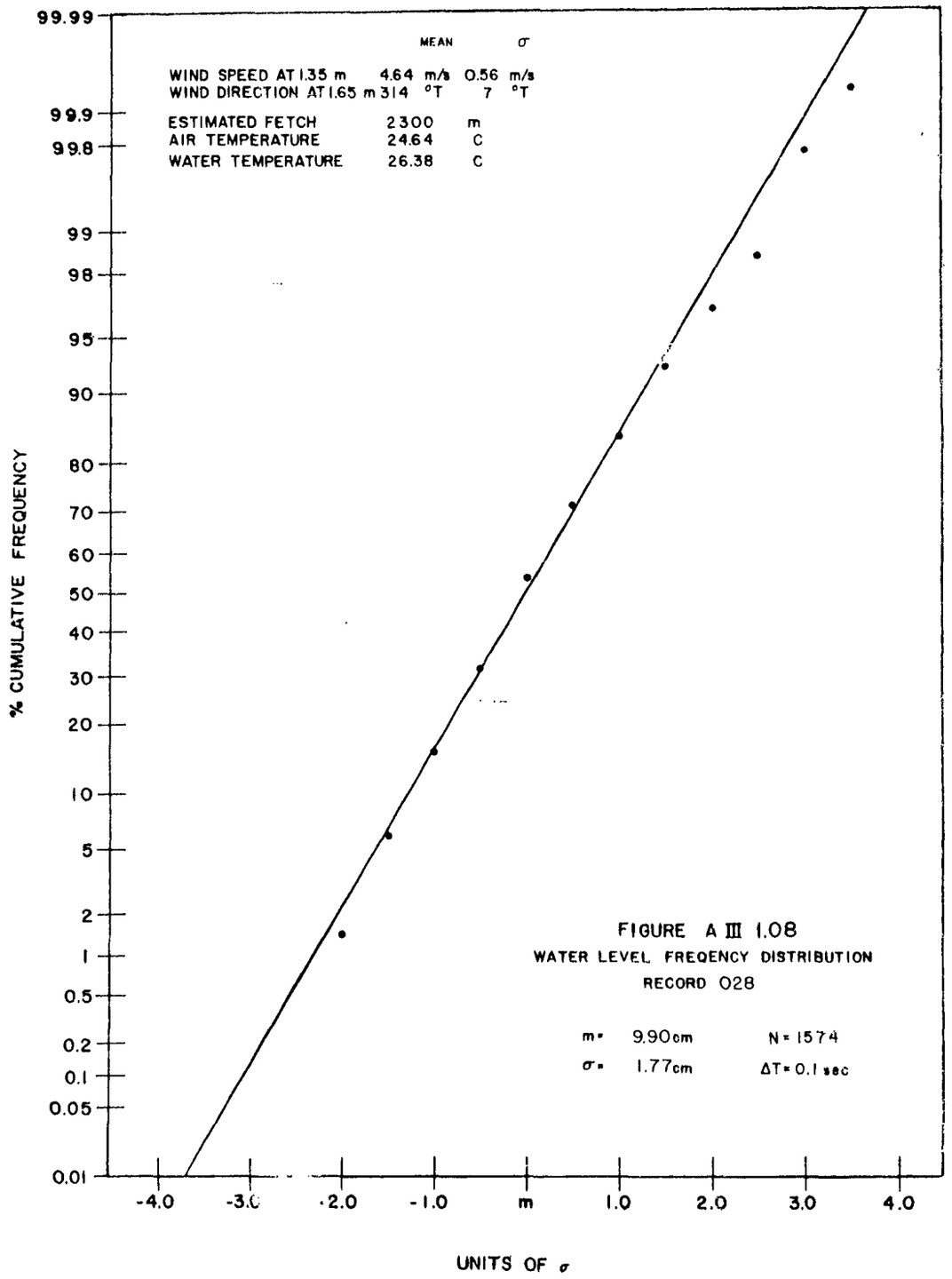
FIGURE A III 1.03
WATER LEVEL FREQENCY DISTRIBUTION
RECORD 011

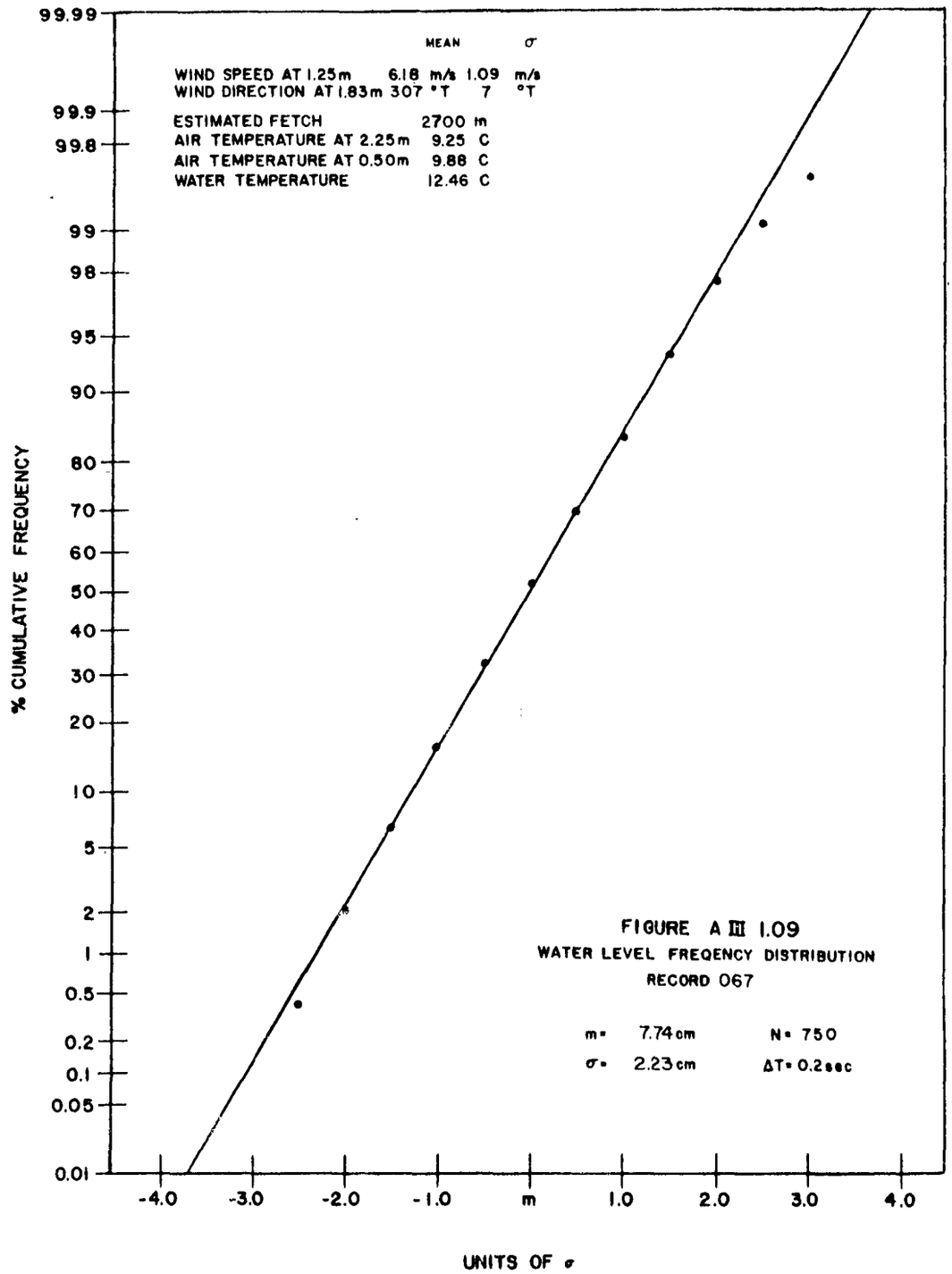

MEAN σ
WIND SPEED AT 1.22 m 5.09 m/s 0.58 m/s
WIND DIRECTION AT 1.52 m 286 °T 9 °T
ESTIMATED FETCH 2200 m
AIR TEMPERATURE 28.98 C
WATER TEMPERATURE 26.62 C
% CUMULATIVE FREQUENCY
99.99
99.9
99.8
99
98
95
90
80
70
60
50
40
30
20
10
5
2
1
0.5
0.2
0.1
0.05
0.01
-4.0
-3.0
-2.0
-1.0
m
1.0
2.0
3.0
4.0
UNITS OF σ
FIGURE A III 1.04
WATER LEVEL FREQENCY DISTRIBUTION
RECORD 012
m= 8.75 cm N= 1337
σ= 2.92 cm ΔT= 0.1 sec

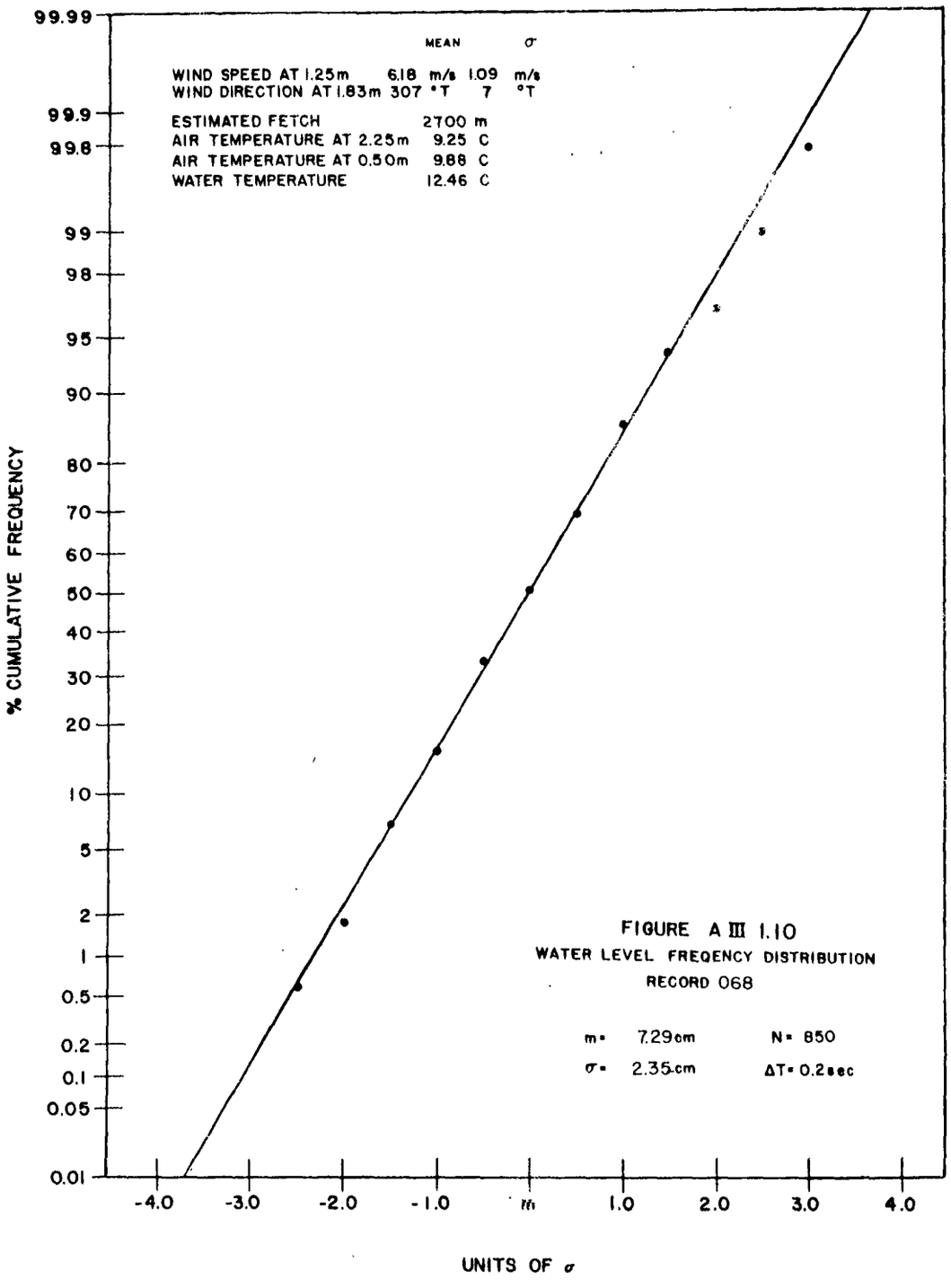

MEAN
σ
WIND SPEED AT 1.22 m 3.88 m/s 0.45 m/s
WIND DIRECTION AT 1.52 m 277 °T 10 °T
ESTIMATED FETCH 1700 m
AIR TEMPERATURE 29.51 C
WATER TEMPERATURE 27.55 C
% CUMULATIVE FREQUENCY
99.99
99.9
99.8
99
98
95
90
80
70
60
50
40
30
20
10
5
2
1
0.5
0.2
0.1
0.05
0.01
-4.0
-3.0
-2.0
-1.0
m
1.0
2.0
3.0
4.0
UNITS OF σ
FIGURE A III 1.05
WATER LEVEL FREQENCY DISTRIBUTION
RECORD 017
m= 11.12 cm
N= 1473
σ= 1.82 cm
ΔT= 0.1 sec


MEAN σ
WIND SPEED AT 1.22 m 3.88 m/s 0.45 m/s
WIND DIRECTION AT 1.52 m 277 °T 10 °T
ESTIMATED FETCH 1700 m
AIR TEMPERATURE 29.51 C
WATER TEMPERATURE 27.55 C
% CUMULATIVE FREQUENCY
99.99
99.9
99.8
99
98
95
90
80
70
60
50
40
30
20
10
5
2
1
0.5
0.2
0.1
0.05
0.01
-4.0
-3.0
-2.0
-1.0
m
1.0
2.0
3.0
4.0
UNITS OF σ
FIGURE A III 1.06
WATER LEVEL FREQENCY DISTRIBUTION
RECORD 018
m = 11.21 cm N = 1411
σ = 2.04 cm ΔT = 0.1 sec


MEAN σ
WIND SPEED AT 1.35 m 4.64 m/s 0.56 m/s
WIND DIRECTION AT 1.65 m 314 °T 7 °T
ESTIMATED FETCH 2300 m
AIR TEMPERATURE 24.64 C
WATER TEMPERATURE 26.38 C
% CUMULATIVE FREQUENCY
99.99
99.9
99.8
99
98
95
90
80
70
60
50
40
30
20
10
5
2
1
0.5
0.2
0.1
0.05
0.01
-4.0
-3.0
-2.0
-1.0
m
1.0
2.0
3.0
4.0
UNITS OF σ
FIGURE A III 1.07
WATER LEVEL FREQENCY DISTRIBUTION
RECORD 027
m = 10.11 cm
N = 1527
σ = 1.97 cm
ΔT = 0.1 sec


MEAN σ
WIND SPEED AT 1.35 m 4.64 m/s 0.56 m/s
WIND DIRECTION AT 1.65 m 314 °T 7 °T
ESTIMATED FETCH 2300 m
AIR TEMPERATURE 24.64 C
WATER TEMPERATURE 26.38 C
% CUMULATIVE FREQUENCY
99.99
99.9
99.8
99
98
95
90
80
70
60
50
40
30
20
10
5
2
1
0.5
0.2
0.1
0.05
0.01
-4.0
-3.0
-2.0
-1.0
m
1.0
2.0
3.0
4.0
UNITS OF σ
FIGURE A III 1.08
WATER LEVEL FREQENCY DISTRIBUTION
RECORD 028
m= 9.90cm N= 1574
σ= 1.77cm ΔT= 0.1 sec


MEAN σ
WIND SPEED AT 1.25m 6.18 m/s 1.09 m/s
WIND DIRECTION AT 1.83m 307 °T 7 °T
ESTIMATED FETCH 2700 m
AIR TEMPERATURE AT 2.25m 9.25 C
AIR TEMPERATURE AT 0.50m 9.88 C
WATER TEMPERATURE 12.46 C
% CUMULATIVE FREQUENCY
99.99
99.9
99.8
99
98
95
90
80
70
60
50
40
30
20
10
5
2
1
0.5
0.2
0.1
0.05
0.01
-4.0
-3.0
-2.0
-1.0
m
1.0
2.0
3.0
4.0
UNITS OF σ
FIGURE A III 1.09
WATER LEVEL FREQENCY DISTRIBUTION
RECORD 067
m= 7.74cm N= 750
σ= 2.23cm ΔT= 0.2sec


MEAN σ
WIND SPEED AT 1.25m 6.18 m/s 1.09 m/s
WIND DIRECTION AT 1.83m 307 °T 7 °T
ESTIMATED FETCH 2700 m
AIR TEMPERATURE AT 2.25m 9.25 C
AIR TEMPERATURE AT 0.50m 9.88 C
WATER TEMPERATURE 12.46 C
% CUMULATIVE FREQUENCY
99.99
99.9
99.8
99
98
95
90
80
70
60
50
40
30
20
10
5
2
1
0.5
0.2
0.1
0.05
0.01
-4.0
-3.0
-2.0
-1.0
m
1.0
2.0
3.0
4.0
UNITS OF σ
FIGURE A III 1.10
WATER LEVEL FREQENCY DISTRIBUTION
RECORD 068
m= 7.29cm N= 850
σ= 2.35cm ΔT= 0.2sec

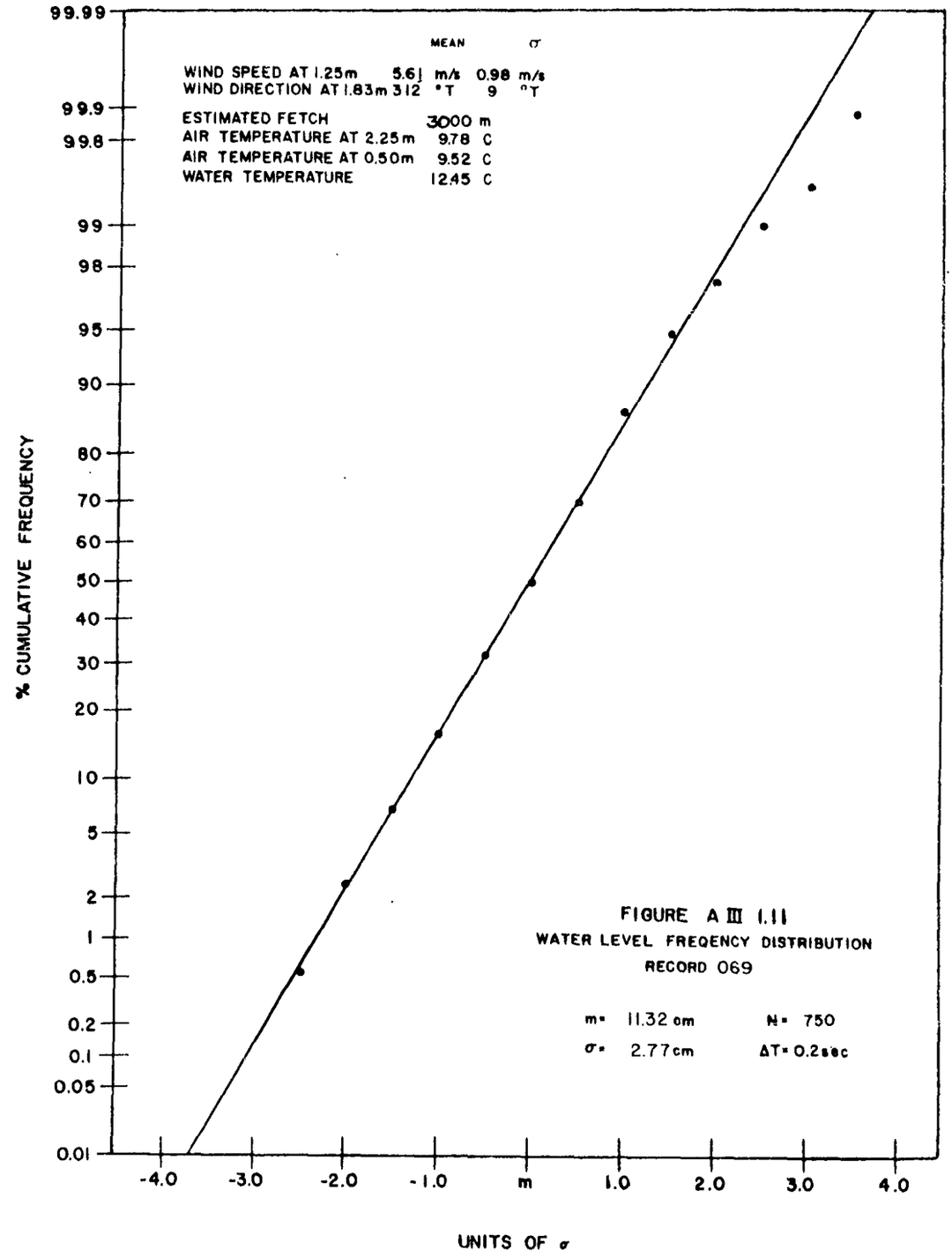


FIGURE A III 1.11
WATER LEVEL FREQENCY DISTRIBUTION
RECORD 069

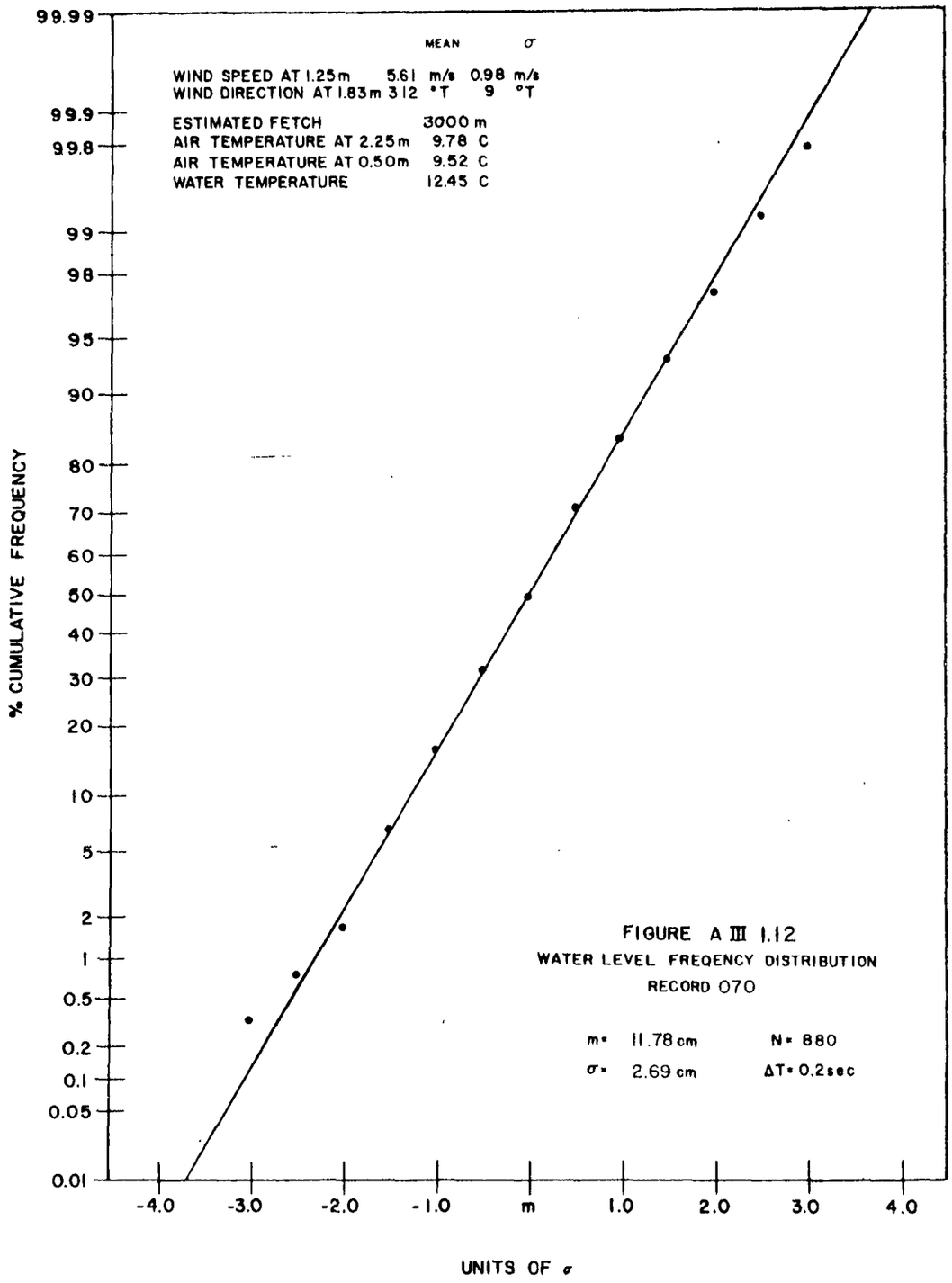


FIGURE A III 1.12
WATER LEVEL FREQENCY DISTRIBUTION
RECORD 070

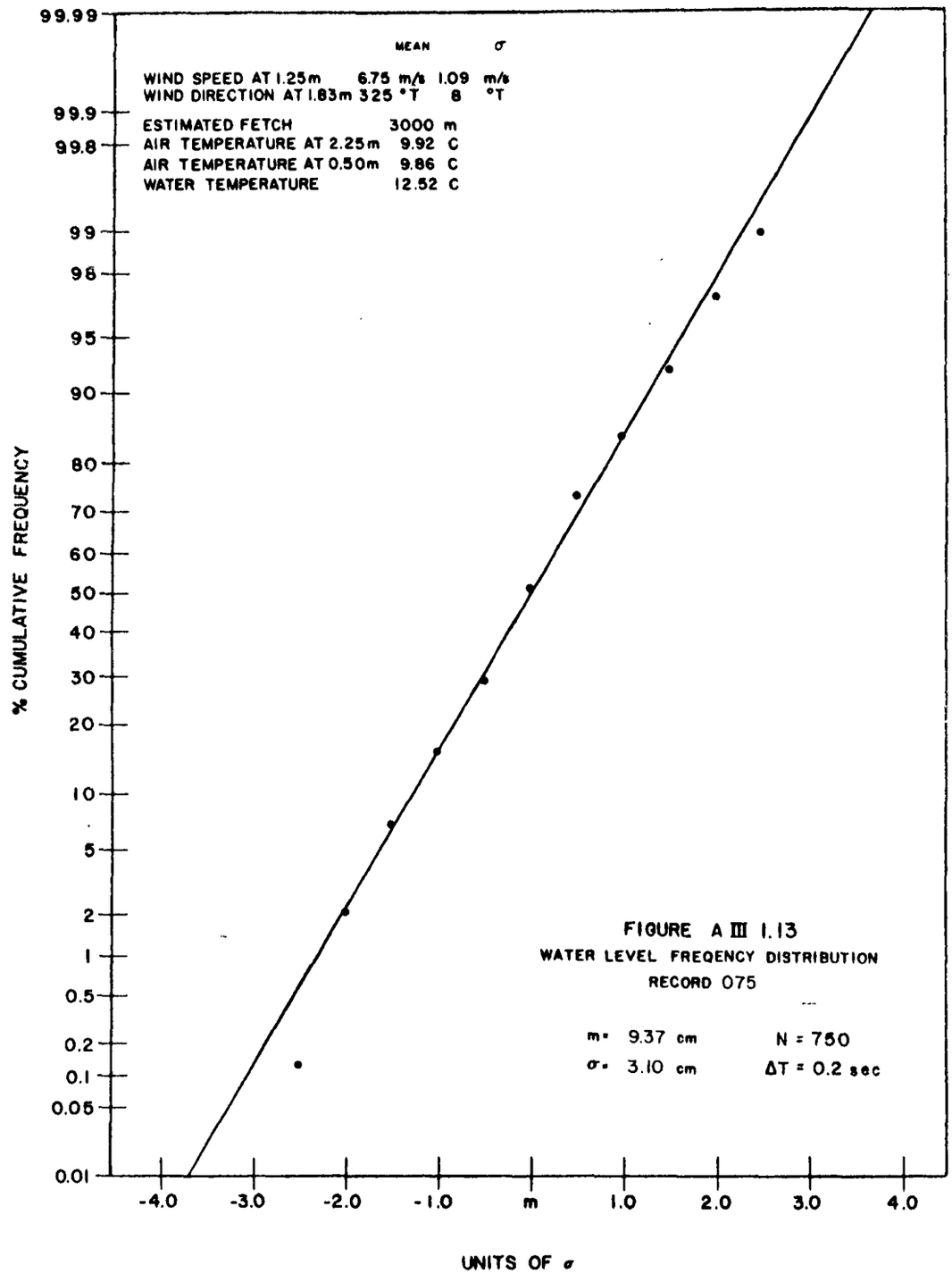
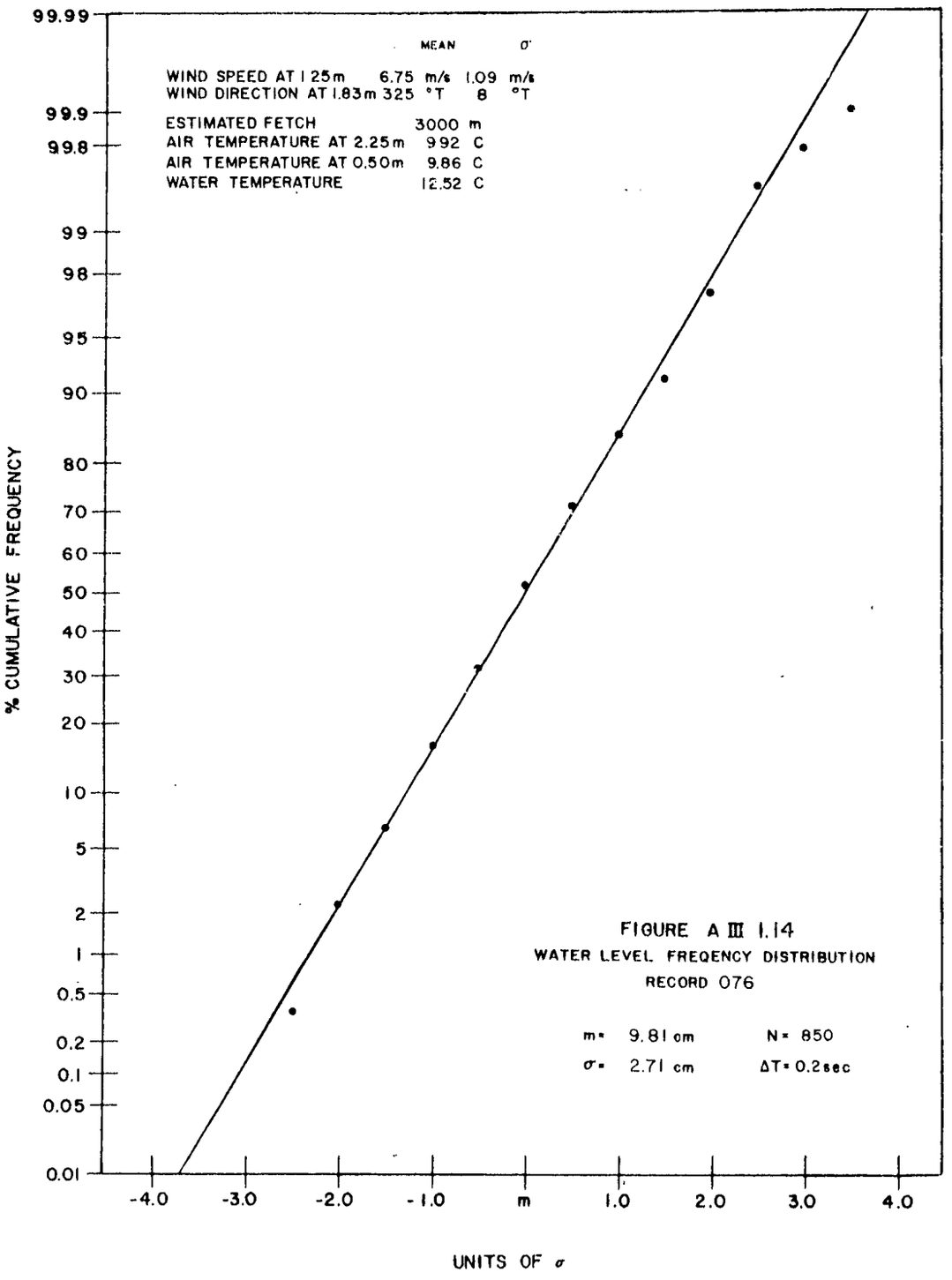
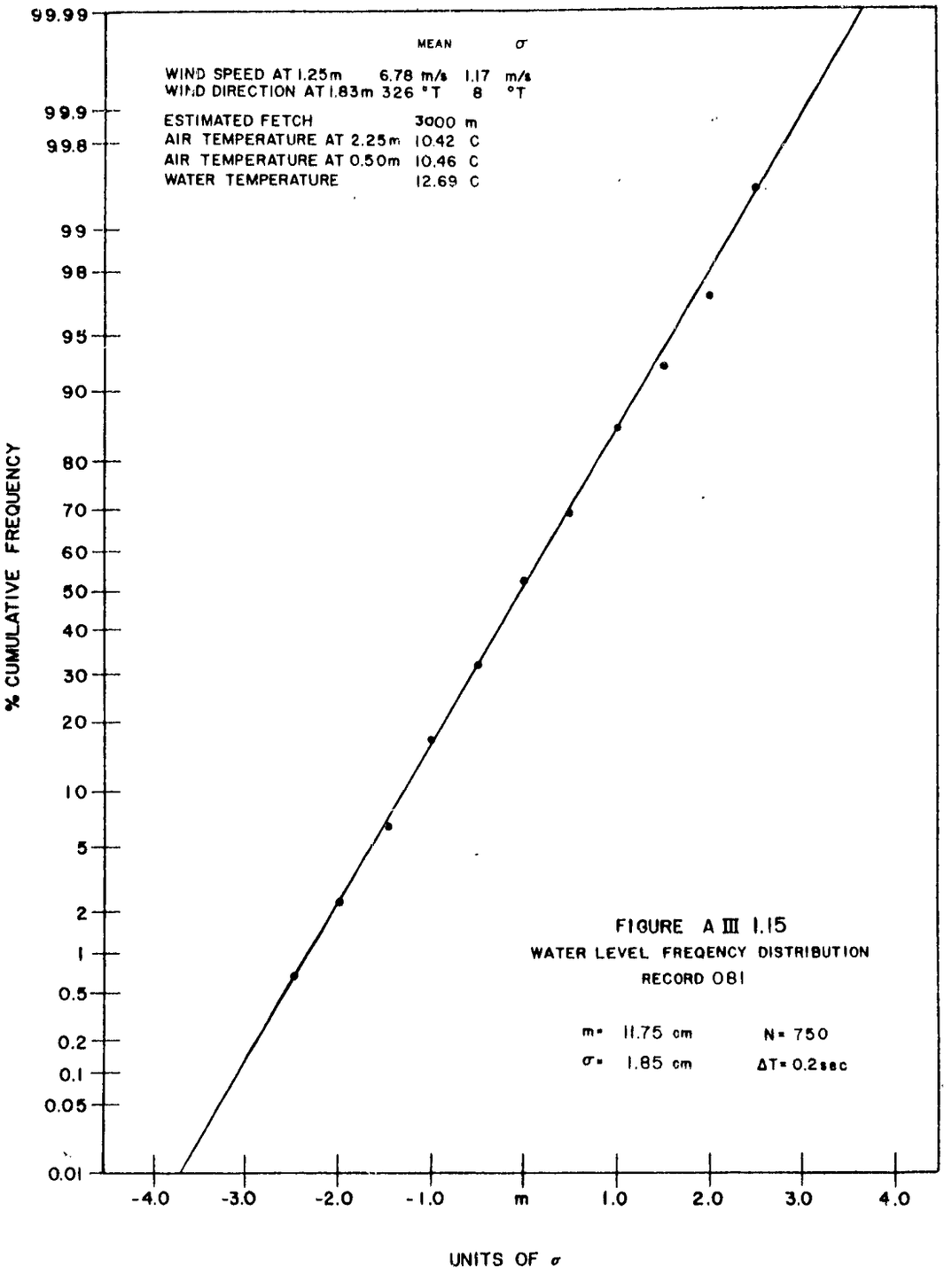


FIGURE A III 1.13
WATER LEVEL FREQENCY DISTRIBUTION
RECORD 075


MEAN σ
WIND SPEED AT 1.25m 6.75 m/s 1.09 m/s
WIND DIRECTION AT 1.83m 325 °T 8 °T
ESTIMATED FETCH 3000 m
AIR TEMPERATURE AT 2.25m 9.92 C
AIR TEMPERATURE AT 0.50m 9.86 C
WATER TEMPERATURE 12.52 C
% CUMULATIVE FREQUENCY
99.99
99.9
99.8
99
98
95
90
80
70
60
50
40
30
20
10
5
2
1
0.5
0.2
0.1
0.05
0.01
-4.0
-3.0
-2.0
-1.0
m
1.0
2.0
3.0
4.0
UNITS OF σ
FIGURE A III 1.14
WATER LEVEL FREQENCY DISTRIBUTION
RECORD 076
m= 9.81 cm
N= 850
σ= 2.71 cm
ΔT= 0.2 sec


MEAN σ
WIND SPEED AT 1.25m 6.78 m/s 1.17 m/s
WIND DIRECTION AT 1.83m 326 °T 8 °T
ESTIMATED FETCH 3000 m
AIR TEMPERATURE AT 2.25m 10.42 C
AIR TEMPERATURE AT 0.50m 10.46 C
WATER TEMPERATURE 12.69 C
% CUMULATIVE FREQUENCY
99.99
99.9
99.8
99
98
95
90
80
70
60
50
40
30
20
10
5
2
1
0.5
0.2
0.1
0.05
0.01
-4.0
-3.0
-2.0
-1.0
m
1.0
2.0
3.0
4.0
UNITS OF σ
FIGURE A III 1.15
WATER LEVEL FREQENCY DISTRIBUTION
RECORD 081
m= 11.75 cm N= 750
σ= 1.85 cm ΔT= 0.2sec

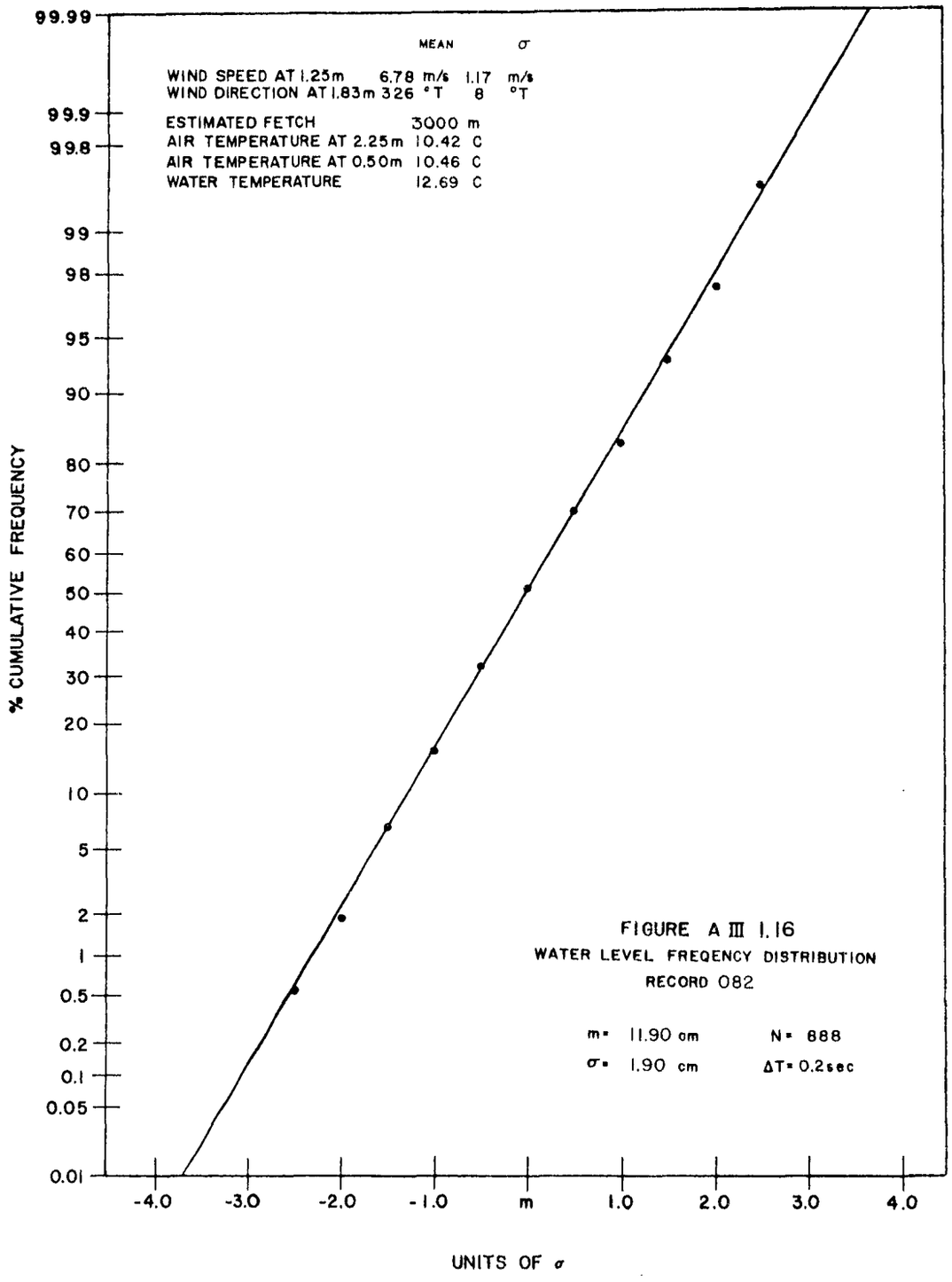


FIGURE A III 1.16
WATER LEVEL FREQENCY DISTRIBUTION
RECORD 082

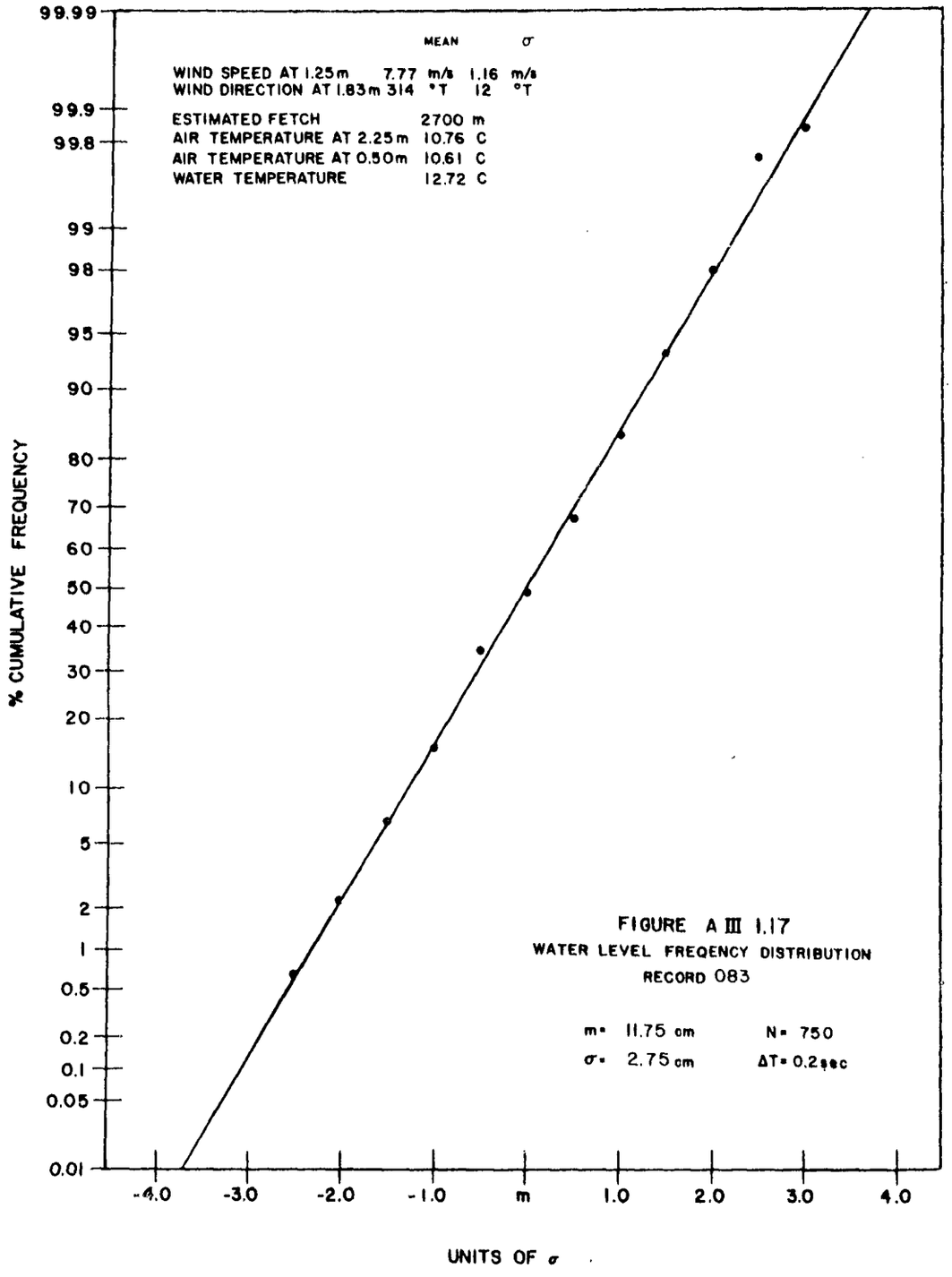
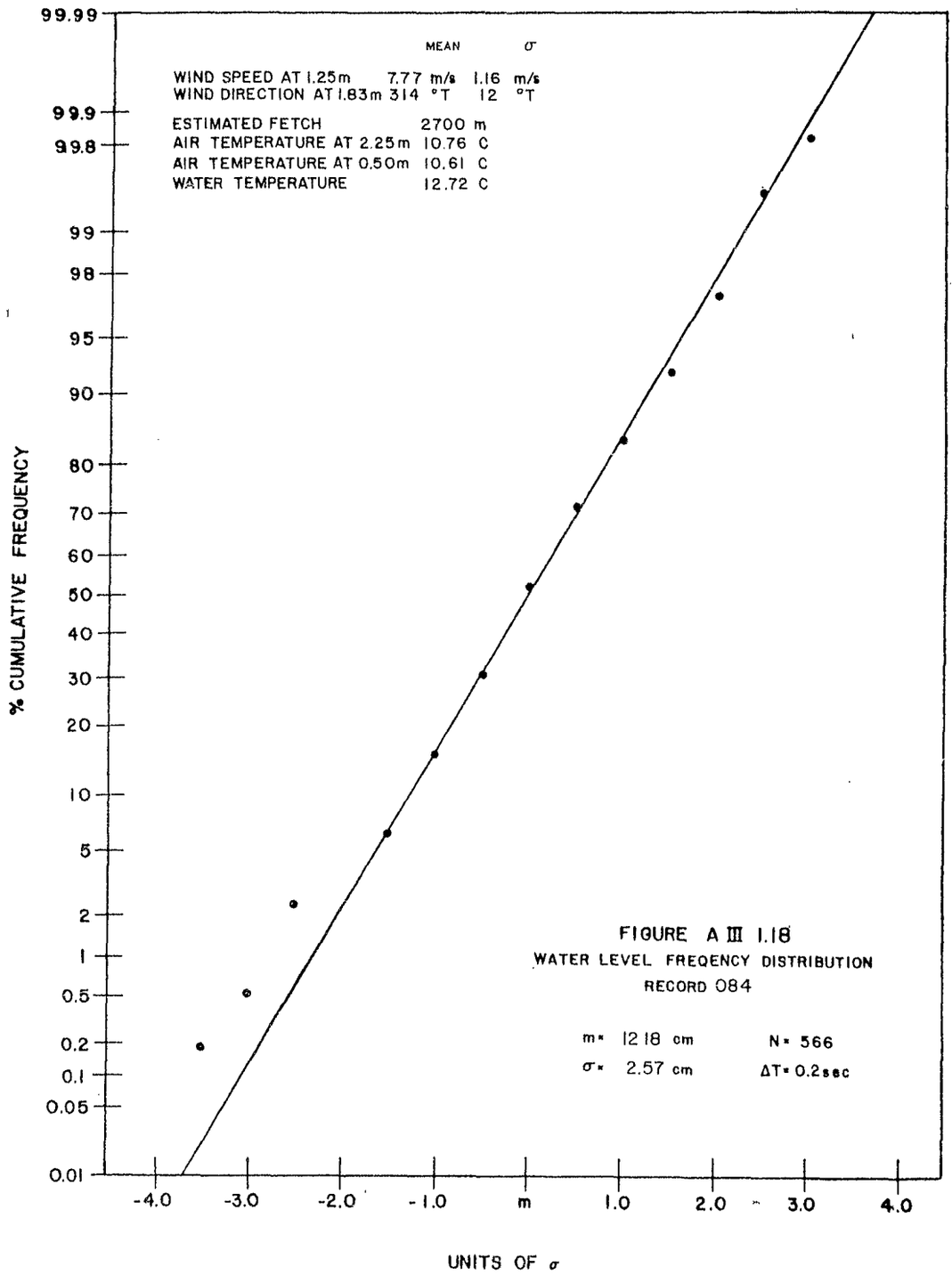


FIGURE A III 1.17
WATER LEVEL FREQENCY DISTRIBUTION
RECORD 083


MEAN σ
WIND SPEED AT 1.25m 7.77 m/s 1.16 m/s
WIND DIRECTION AT 1.83m 314 °T 12 °T
ESTIMATED FETCH 2700 m
AIR TEMPERATURE AT 2.25m 10.76 C
AIR TEMPERATURE AT 0.50m 10.61 C
WATER TEMPERATURE 12.72 C
% CUMULATIVE FREQUENCY
99.99
99.9
99.8
99
98
95
90
80
70
60
50
40
30
20
10
5
2
1
0.5
0.2
0.1
0.05
0.01
-4.0
-3.0
-2.0
-1.0
m
1.0
2.0
3.0
4.0
UNITS OF σ
FIGURE A III 1.18
WATER LEVEL FREQENCY DISTRIBUTION
RECORD 084
m= 12.18 cm
σ= 2.57 cm
N= 566
ΔT= 0.2sec

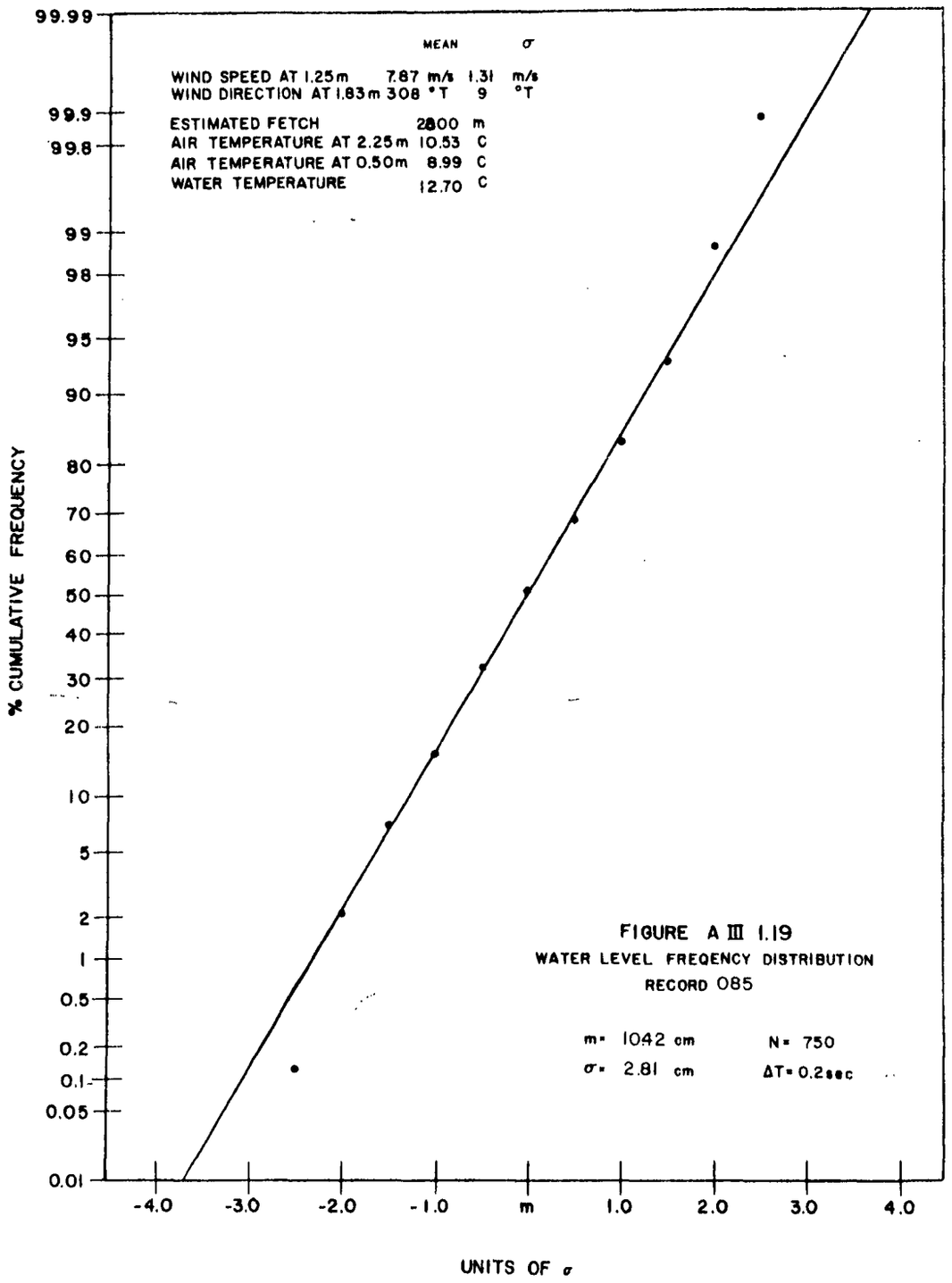
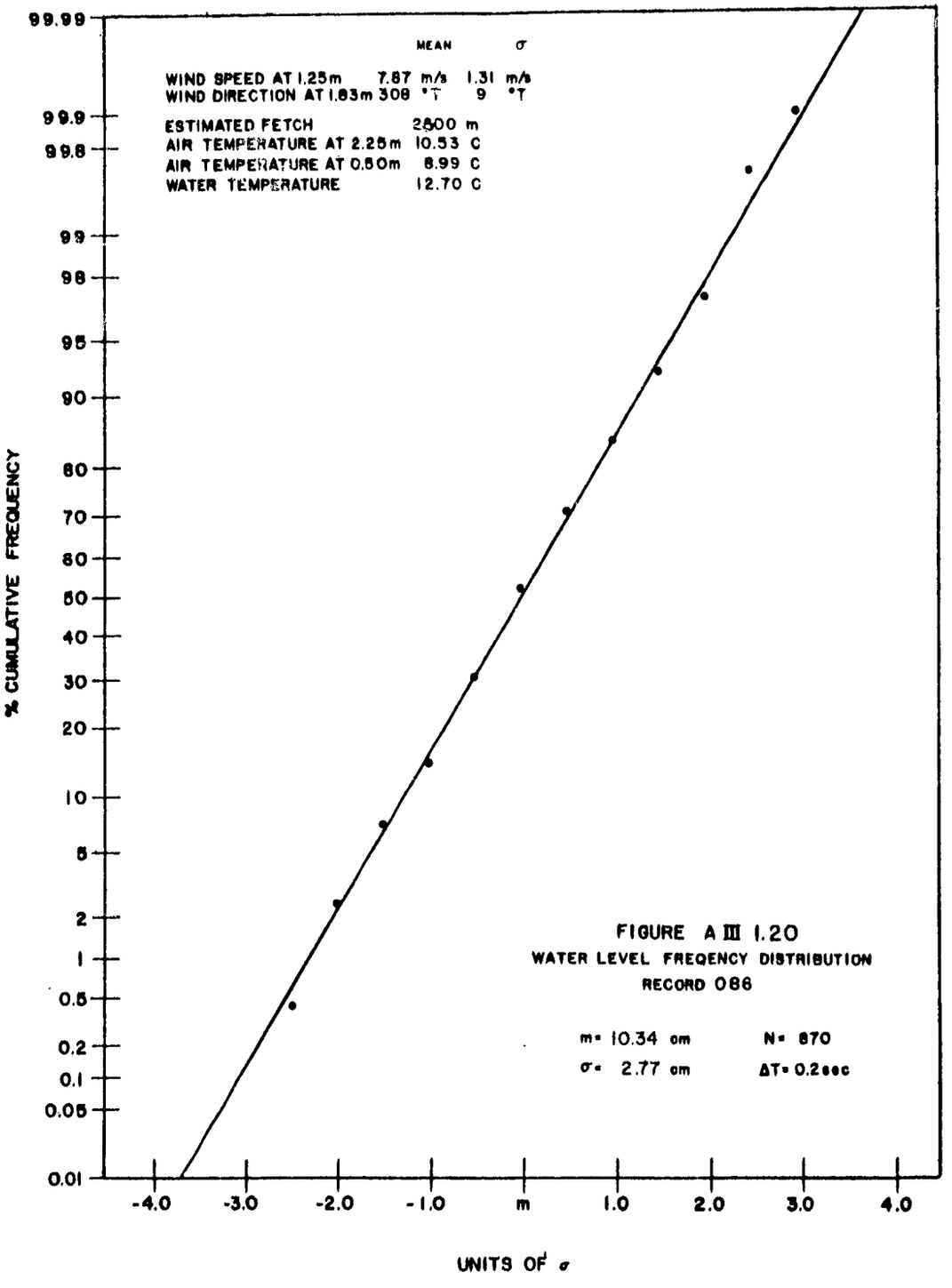
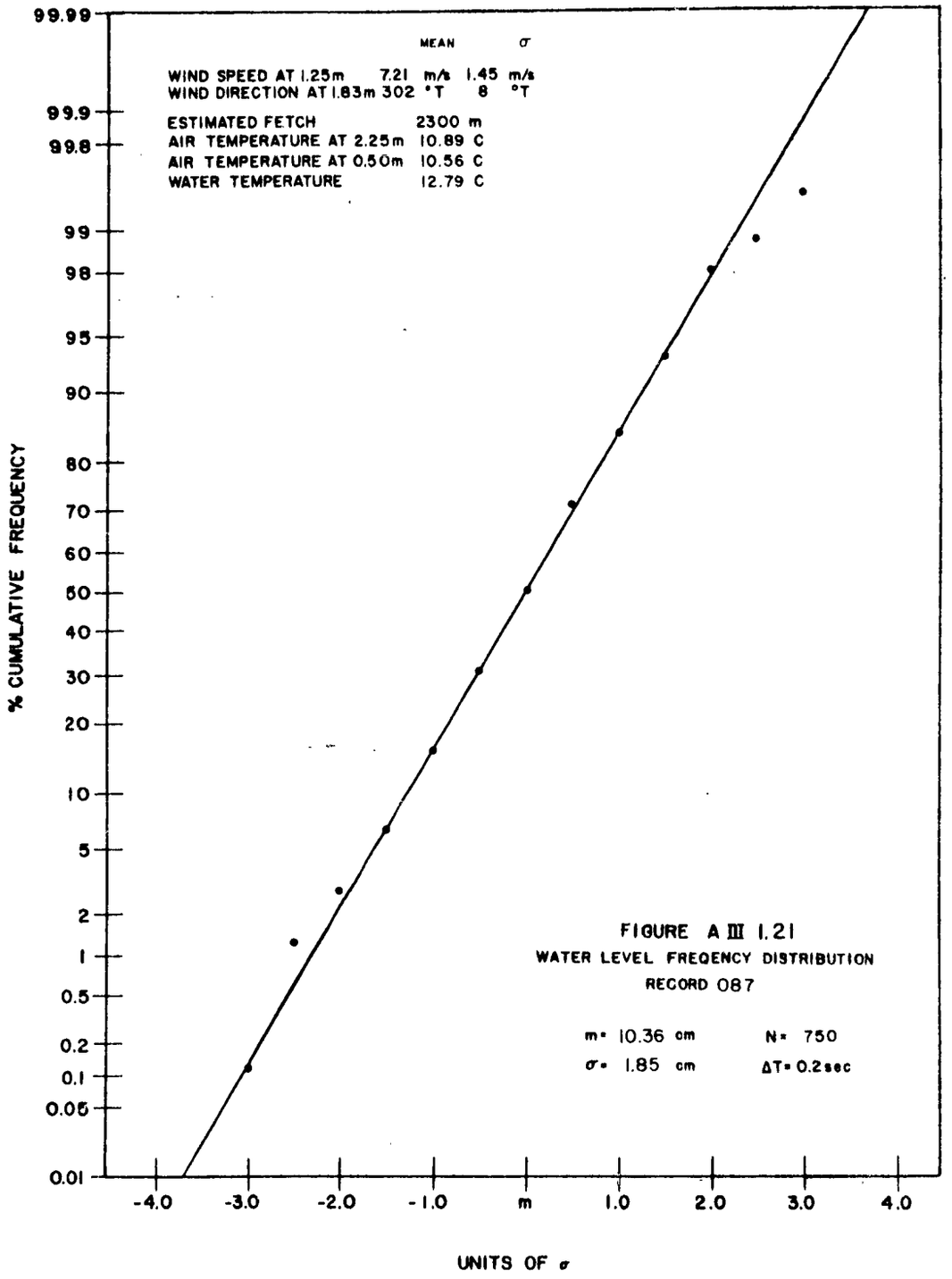


FIGURE A III 1.19
WATER LEVEL FREQENCY DISTRIBUTION
RECORD 085


MEAN σ
WIND SPEED AT 1.25m 7.87 m/s 1.31 m/s
WIND DIRECTION AT 1.83m 308 °T 9 °T
ESTIMATED FETCH 2800 m
AIR TEMPERATURE AT 2.25m 10.53 C
AIR TEMPERATURE AT 0.50m 8.99 C
WATER TEMPERATURE 12.70 C
% CUMULATIVE FREQUENCY
99.99
99.9
99.8
99
98
95
90
80
70
60
50
40
30
20
10
5
2
1
0.5
0.2
0.1
0.05
0.01
-4.0
-3.0
-2.0
-1.0
m
1.0
2.0
3.0
4.0
UNITS OF σ
FIGURE A III 1.20
WATER LEVEL FREQENCY DISTRIBUTION
RECORD 086
m= 10.34 cm
σ= 2.77 cm
N= 870
ΔT= 0.2sec


MEAN σ
WIND SPEED AT 1.25m 7.21 m/s 1.45 m/s
WIND DIRECTION AT 1.83m 302 °T 8 °T
ESTIMATED FETCH 2300 m
AIR TEMPERATURE AT 2.25m 10.89 C
AIR TEMPERATURE AT 0.50m 10.56 C
WATER TEMPERATURE 12.79 C
% CUMULATIVE FREQUENCY
99.99
99.9
99.8
99
98
95
90
80
70
60
50
40
30
20
10
5
2
1
0.5
0.2
0.1
0.05
0.01
-4.0
-3.0
-2.0
-1.0
m
1.0
2.0
3.0
4.0
UNITS OF σ
FIGURE A III 1.21
WATER LEVEL FREQENCY DISTRIBUTION
RECORD 087
m= 10.36 cm
N= 750
σ= 1.85 cm
ΔT= 0.2sec

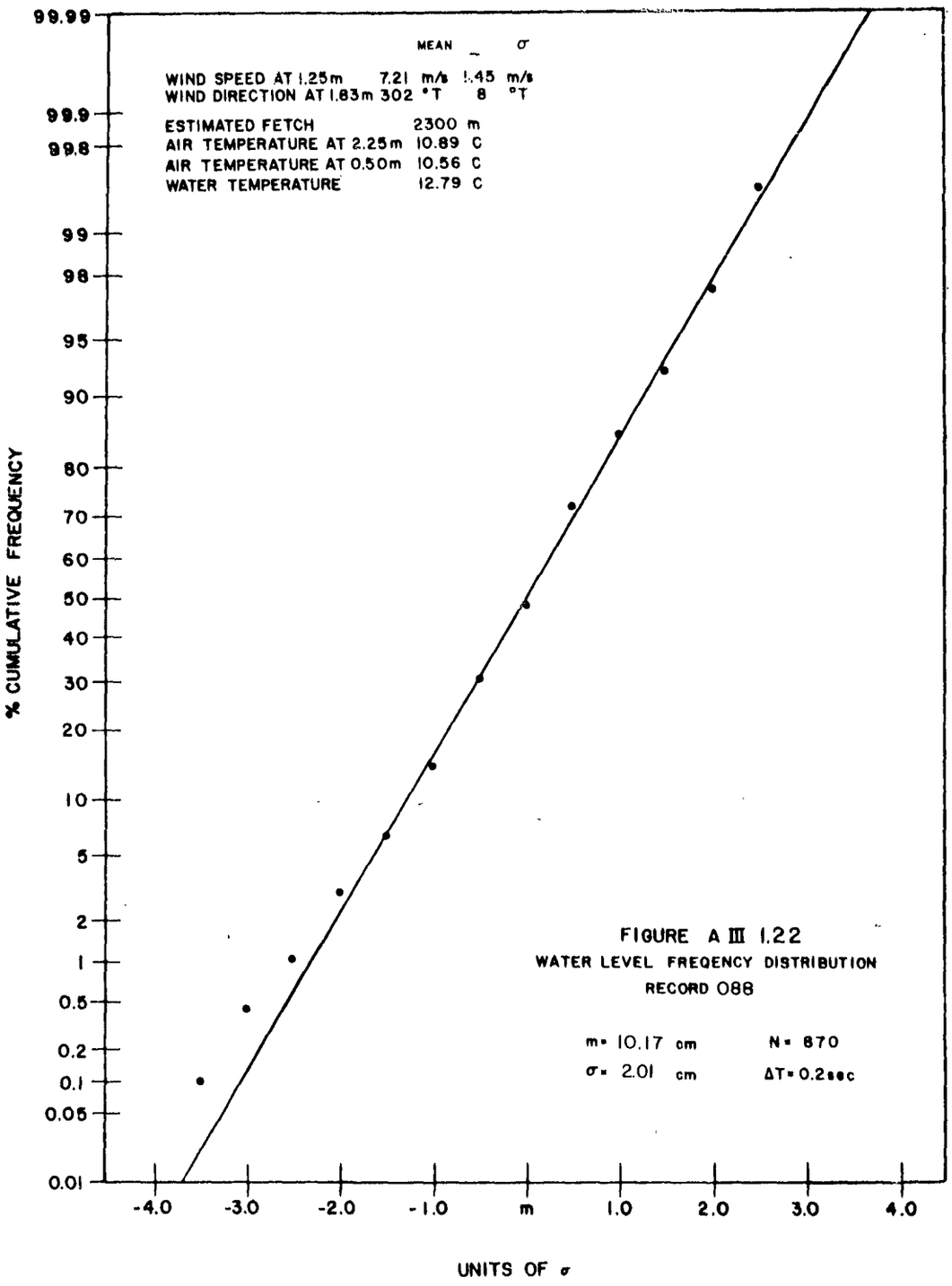


FIGURE A III 1.22
WATER LEVEL FREQENCY DISTRIBUTION
RECORD 088

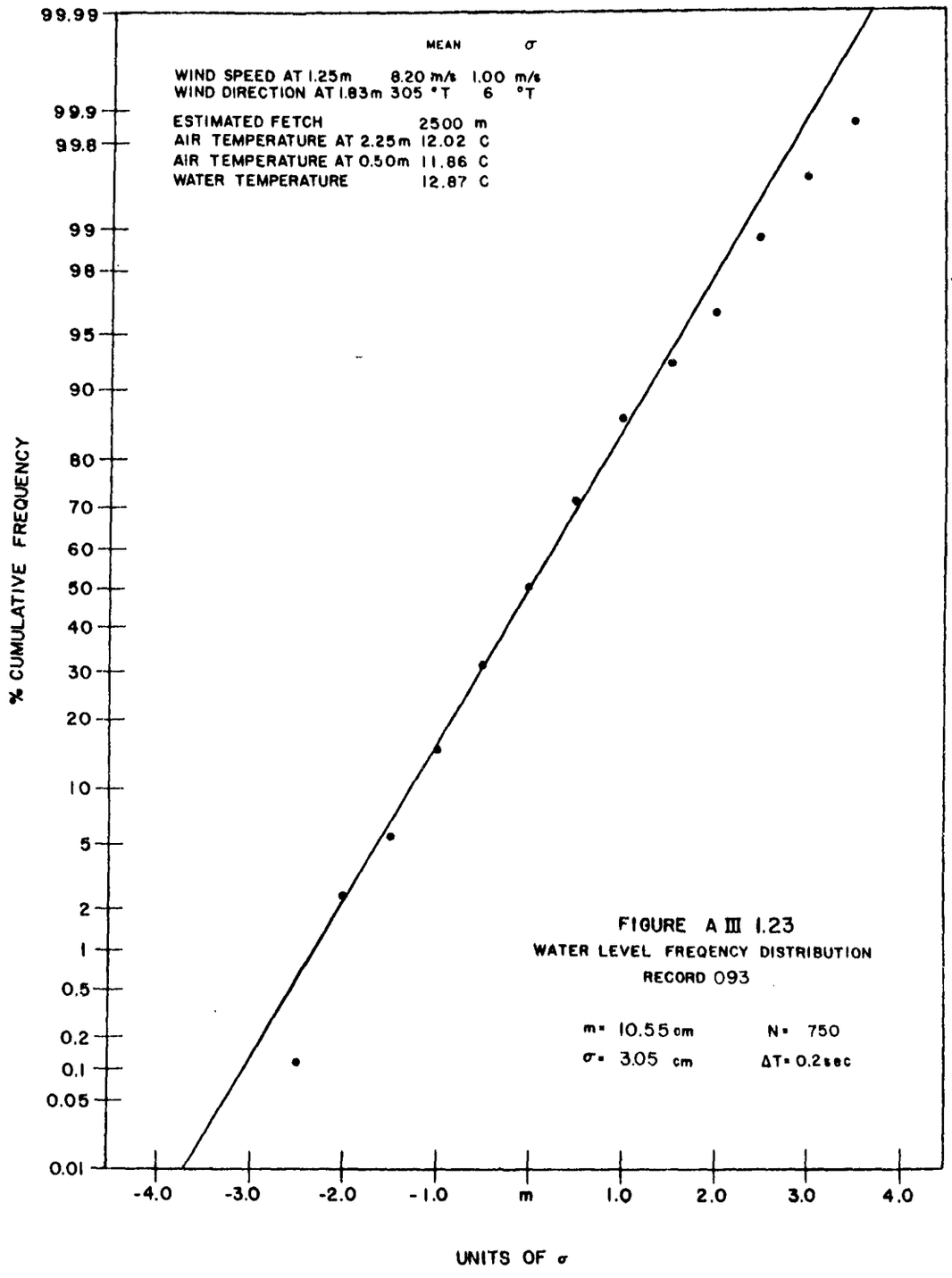


FIGURE A III 1.23
WATER LEVEL FREQENCY DISTRIBUTION
RECORD 093

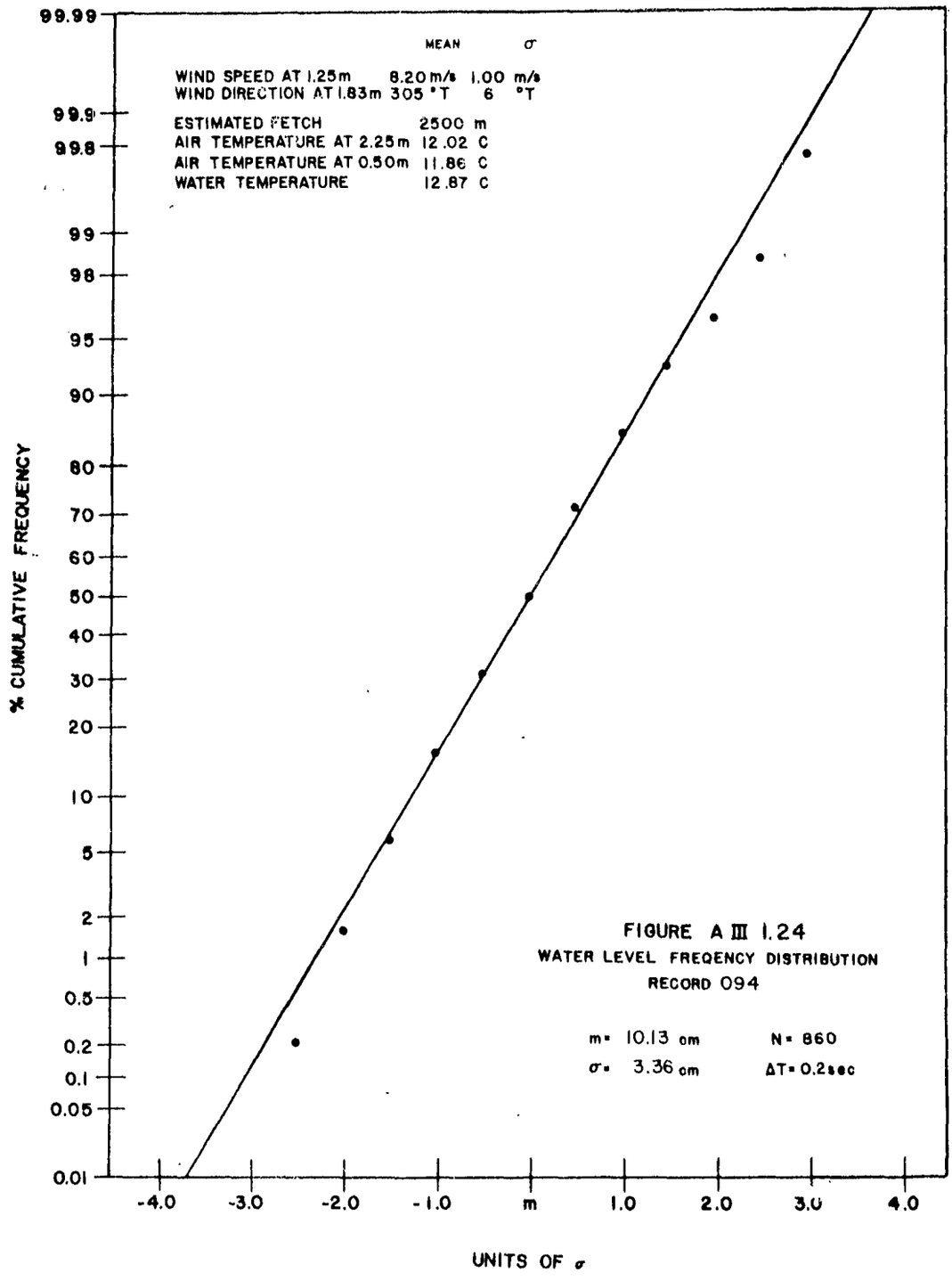


FIGURE A III 1.24
WATER LEVEL FREQENCY DISTRIBUTION
RECORD 094

TABLE A III 1.01

FREQUENCY DISTRIBUTION WATER LEVEL

RECORD 009

Mean = 8.91 cm σ = 2.91 cm

ΔT = 0.1 sec N = 1549

Interval (σ)	Frequency (Count)	Frequency (%)
-4.5		
-4.0		
-3.5		
-3.0	1	0.06
-2.5	15	0.97
-2.0	79	5.10
-1.5	160	10.33
-1.0	242	15.62
-0.5	305	19.69
0.5	300	19.37
1.0	210	13.56
1.5	124	8.01
2.0	56	3.62
2.5	35	2.26
3.0	16	1.03
3.5	5	0.32
4.0	1	0.06
4.5		

TABLE A III 1.02

FREQUENCY DISTRIBUTION WATER LEVEL

RECORD 010

Mean = 8.74 cm σ = 2.99 cm

ΔT = 0.1 sec N = 1406

Interval (σ)	Frequency (Count)	Frequency (%)
-4.5		
-4.0		
-3.5		
-3.0		
-2.5	22	1.56
-2.0	76	5.41
-1.5	128	9.10
-1.0	217	15.43
-0.5	287	20.41
0.5	273	19.42
1.0	180	12.80
1.5	115	8.18
2.0	59	4.20
2.5	31	2.20
3.0	17	1.21
3.5	1	0.07
4.0		
4.5		

	MEAN	σ
WIND SPEED AT 1.04 m	4.92 m/s	0.58 m/s
WIND DIRECTION AT 1.34 m	286 °T	8 °T
ESTIMATED FETCH	2100	m
AIR TEMPERATURE	27.45	C
WATER TEMPERATURE	26.18	C

TABLE A III 1.03

FREQUENCY DISTRIBUTION WATER LEVEL

RECORD 011

Mean = 8.90 cm σ = 3.28 cm

ΔT = 0.1 sec N = 1509

Interval (σ)	Frequency (Count)	Frequency (%)
-4.5		
-4.0		
-3.5		
-3.0		
-2.5	9	0.60
-2.0	98	6.49
-1.5	147	9.74
-1.0	242	16.04
-0.5	259	17.16
0.5	297	19.68
1.0	200	13.25
1.5	162	10.74
2.0	51	3.38
2.5	32	2.12
3.0	8	0.53
3.5	4	0.27
4.0		
4.5		

TABLE A III 1.04

FREQUENCY DISTRIBUTION WATER LEVEL

RECORD 012

Mean = 8.73 cm σ = 2.91 cm

ΔT = 0.1 sec N = 1337

Interval (σ)	Frequency (Count)	Frequency (%)
-4.5		
-4.0		
-3.5		
-3.0		
-2.5	16	1.20
-2.0	67	5.01
-1.5	129	9.65
-1.0	222	16.60
-0.5	267	19.97
0.5	245	18.32
1.0	185	13.84
1.5	116	8.68
2.0	47	3.52
2.5	25	1.87
3.0	11	0.82
3.5	4	0.30
4.0	3	0.22
4.5		

	MEAN	σ
WIND SPEED AT 1.22 m	5.09 m/s	0.58 m/s
WIND DIRECTION AT 1.52 m	288 °T	9 °T
ESTIMATED FETCH	2200	m
AIR TEMPERATURE	28.98	C
WATER TEMPERATURE	26.62	C

TABLE A III 1.05

FREQUENCY DISTRIBUTION
WATER LEVEL

RECORD 017

Mean = 11.12 cm σ = 1.82 cm

ΔT = 0.1 sec N = 1473

Interval (σ)	Frequency (Count)	Frequency (%)
-4.5		
-4.0		
-3.5		
-3.0	2	0.14
-2.5	19	1.29
-2.0	61	4.14
-1.5	144	9.78
-1.0	258	17.52
-0.5	303	20.57
0.5	269	18.26
1.0	175	11.88
1.5	129	8.76
2.0	66	4.48
2.5	27	1.83
3.0	16	1.09
3.5	3	0.20
4.0	1	0.07
4.5		

TABLE A III 1.06

FREQUENCY DISTRIBUTION
WATER LEVEL

RECORD 018

Mean = 11.21 cm σ = 2.03 cm

ΔT = 0.1 sec N = 1411

Interval (σ)	Frequency (Count)	Frequency (%)
-4.5		
-4.0		
-3.5	1	0.07
-3.0	3	0.21
-2.5	20	1.42
-2.0	40	2.83
-1.5	140	9.92
-1.0	273	19.35
-0.5	290	20.55
0.5	244	17.29
1.0	170	12.05
1.5	123	8.72
2.0	59	4.18
2.5	30	2.13
3.0	10	0.71
3.5	5	0.35
4.0	3	0.21
4.5		

	MEAN	σ
WIND SPEED AT 1.22 m	3.88 m/s	0.45 m/s
WIND DIRECTION AT 1.52 m	277 °T	10 °T
ESTIMATED FETCH	1700	m
AIR TEMPERATURE	29.51	C
WATER TEMPERATURE	27.55	C

TABLE A III 1.07

FREQUENCY DISTRIBUTION WATER LEVEL

RECORD 027

Mean = 10.11 cm σ = 1.97 cm

ΔT = 0.1 sec N = 1527

Interval (σ)	Frequency (Count)	Frequency (%)
-4.5		
-4.0		
-3.5		
-3.0		
-2.5	17	1.11
-2.0	61	3.99
-1.5	161	10.54
-1.0	303	19.84
-0.5	280	18.34
0.5	251	16.44
1.0	194	12.70
1.5	130	8.51
2.0	85	5.57
2.5	34	2.23
3.0	11	0.72
3.5		
4.0		
4.5		

TABLE A III 1.08

FREQUENCY DISTRIBUTION WATER LEVEL

RECORD 028

Mean = 9.89 cm σ = 1.77 cm

ΔT = 0.1 sec N = 1574

Interval (σ)	Frequency (Count)	Frequency (%)
-4.5		
-4.0		
-3.5		
-3.0		
-2.5	23	1.46
-2.0	70	4.45
-1.5	144	9.15
-1.0	264	16.77
-0.5	346	21.98
0.5	257	16.33
1.0	227	14.42
1.5	128	8.13
2.0	61	3.88
2.5	30	1.91
3.0	20	1.27
3.5	3	0.19
4.0	1	0.06
4.5		

	MEAN		σ	
WIND SPEED AT 1.35 m	4.64	m/s	0.56	m/s
WIND DIRECTION AT 1.65 m	314	°T	7	°T
ESTIMATED FETCH	2300	m		
AIR TEMPERATURE	24.64	C		
WATER TEMPERATURE	26.38	C		

TABLE A III 1.09

FREQUENCY DISTRIBUTION
WATER LEVEL

RECORD 067

Mean = 7.75cm σ = 2.23cm

ΔT = 0.2 sec N = 750

Interval (σ)	Frequency (Count)	Frequency (%)
-4.5		
-4.0		
-3.5		
-3.0	3	0.40
-2.5	13	1.73
-2.0	33	4.40
-1.5	70	9.33
-1.0	122	16.27
-0.5	146	19.47
0.5	135	18.00
1.0	105	14.00
1.5	74	9.87
2.0	31	4.13
2.5	11	1.47
3.0	4	0.53
3.5	3	0.40
4.0		
4.5		

TABLE A III 1.10

FREQUENCY DISTRIBUTION
WATER LEVEL

RECORD 068

Mean = 7.30 cm σ = 2.36 cm

ΔT = 0.2 sec N = 850

Interval (σ)	Frequency (Count)	Frequency (%)
-4.5		
-4.0		
-3.5		
-3.0	5	0.59
-2.5	10	1.18
-2.0	42	4.94
-1.5	73	8.59
-1.0	148	17.41
-0.5	151	17.76
0.5	157	18.47
1.0	144	16.94
1.5	66	7.76
2.0	23	2.71
2.5	22	2.59
3.0	7	0.82
3.5	2	0.24
4.0		
4.5		

	MEAN	σ
WIND SPEED AT 1.25m	6.18 m/s	1.09 m/s
WIND DIRECTION AT 1.83m	307 °T	7 °T
ESTIMATED FETCH	2700 m	
AIR TEMPERATURE AT 2.25m	9.25 C	
AIR TEMPERATURE AT 0.50m	9.88 C	
WATER TEMPERATURE	12.46 C	

TABLE A III 1.11

FREQUENCY DISTRIBUTION WATER LEVEL

RECORD 069

Mean = 11.32cm σ = 2.78 cm

ΔT = 0.2 sec N = 750

Interval (σ)	Frequency (Count)	Frequency (%)
-4.5		
-4.0		
-3.5		
-3.0	4	0.53
-2.5	14	1.87
-2.0	33	4.40
-1.5	68	9.07
-1.0	119	15.87
-0.5	134	17.87
0.5	147	19.60
1.0	127	16.93
1.5	62	8.27
2.0	22	2.93
2.5	12	1.60
3.0	4	0.53
3.5	3	0.40
4.0	1	0.13
4.5		

TABLE A III 1.12

FREQUENCY DISTRIBUTION WATER LEVEL

RECORD 070

Mean = 11.78 cm σ = 2.69 cm

ΔT = 0.2 sec N = 880

Interval (σ)	Frequency (Count)	Frequency (%)
-4.5		
-4.0		
-3.5	3	0.34
-3.0	4	0.45
-2.5	8	0.91
-2.0	44	5.00
-1.5	82	9.32
-1.0	140	15.91
-0.5	157	17.84
0.5	186	21.14
1.0	114	12.95
1.5	84	9.55
2.0	35	3.98
2.5	16	1.82
3.0	5	0.57
3.5	2	0.23
4.0		
4.5		

	MEAN		σ	
WIND SPEED AT 1.25m	5.61	m/s	0.98	m/s
WIND DIRECTION AT 1.83m	312	°T	9	°T
ESTIMATED FETCH	3000	m		
AIR TEMPERATURE AT 2.25m	9.78	C		
AIR TEMPERATURE AT 0.50m	9.52	C		
WATER TEMPERATURE	12.45	C		

TABLE A III 1.13

FREQUENCY DISTRIBUTION WATER LEVEL

RECORD 075

Mean = 9.37 cm σ = 3.11 cm

ΔT = 0.2 sec N = 750

Interval (σ)	Frequency (Count)	Frequency (%)
-4.5		
-4.0		
-3.5		
-3.0	1	0.13
-2.5	14	1.87
-2.0	37	4.93
-1.5	65	8.67
-1.0	100	13.33
-0.5	171	22.80
0.5	163	21.73
1.0	82	10.93
1.5	58	7.73
2.0	37	4.93
2.5	14	1.87
3.0	8	1.07
3.5		
4.0		
4.5		

TABLE A III 1.14

FREQUENCY DISTRIBUTION WATER LEVEL

RECORD 076

Mean = 9.82 cm σ = 2.72 cm

ΔT = 0.2 sec N = 850

Interval (σ)	Frequency (Count)	Frequency (%)
-4.5		
-4.0		
-3.5		
-3.0	3	0.35
-2.5	16	1.88
-2.0	35	4.12
-1.5	82	9.65
-1.0	129	15.18
-0.5	174	20.47
0.5	164	19.29
1.0	111	13.06
1.5	63	7.41
2.0	50	5.88
2.5	19	2.24
3.0	2	0.24
3.5	1	0.12
4.0	1	0.12
4.5		

	MEAN	σ
WIND SPEED AT 1.25m	6.75 m/s	1.09 m/s
WIND DIRECTION AT 1.83m	325 °T	8 °T
ESTIMATED FETCH	3000 m	
AIR TEMPERATURE AT 2.25m	9.92 C	
AIR TEMPERATURE AT 0.50m	9.86 C	
WATER TEMPERATURE	12.52 C	

TABLE A III 1.15

FREQUENCY DISTRIBUTION WATER LEVEL

RECORD 081

Mean = 11.75 cm σ = 1.86 cm

ΔT = 0.2 sec N = 750

Interval (σ)	Frequency (Count)	Frequency (%)
-4.5		
-4.0		
-3.5		
-3.0	5	0.67
-2.5	12	1.60
-2.0	31	4.13
-1.5	77	10.27
-1.0	110	14.67
-0.5	157	20.93
0.5	120	16.00
1.0	124	16.53
1.5	56	7.47
2.0	35	4.67
2.5	19	2.53
3.0	4	0.53
3.5		
4.0		
4.5		

TABLE A III 1.16

FREQUENCY DISTRIBUTION WATER LEVEL

RECORD 082

Mean = 11.90 cm σ = 1.91 cm

ΔT = 0.2 sec N = 888

Interval (σ)	Frequency (Count)	Frequency (%)
-4.5		
-4.0		
-3.5		
-3.0	5	0.56
-2.5	12	1.35
-2.0	44	4.95
-1.5	79	8.90
-1.0	145	16.33
-0.5	172	19.37
0.5	167	18.81
1.0	112	12.61
1.5	90	10.14
2.0	40	4.50
2.5	18	2.03
3.0	4	0.45
3.5		
4.0		
4.5		

	MEAN	σ
WIND SPEED AT 1.25m	6.78 m/s	1.17 m/s
WIND DIRECTION AT 1.83m	326 °T	8 °T
ESTIMATED FETCH	3000 m	
AIR TEMPERATURE AT 2.25m	10.42 C	
AIR TEMPERATURE AT 0.50m	10.46 C	
WATER TEMPERATURE	12.69 C	

TABLE A III 1.17

FREQUENCY DISTRIBUTION WATER LEVEL

RECORD 083

Mean = 11.75 cm σ = 2.75 cm

ΔT = 0.2 sec N = 750

Interval (σ)	Frequency (Count)	Frequency (%)
-4.5		
-4.0		
-3.5		
-3.0	5	0.67
-2.5	12	1.60
-2.0	34	4.53
-1.5	63	8.40
-1.0	144	19.20
-0.5	111	14.80
0.5	136	18.13
1.0	124	16.53
1.5	70	9.33
2.0	36	4.80
2.5	13	1.73
3.0	1	0.13
3.5	1	0.13
4.0		
4.5		

TABLE A III 1.18

FREQUENCY DISTRIBUTION WATER LEVEL

RECORD 084

Mean = 12.18 cm σ = 2.58 cm

ΔT = 0.2 sec N = 566

Interval (σ)	Frequency (Count)	Frequency (%)
-4.5		
-4.0		
-3.5	1	0.18
-3.0	2	0.35
-2.5	10	1.77
-2.0	21	3.71
-1.5	51	9.01
-1.0	85	15.02
-0.5	126	22.26
0.5	107	18.90
1.0	72	12.72
1.5	47	8.30
2.0	28	4.95
2.5	13	2.30
3.0	2	0.35
3.5	1	0.18
4.0		
4.5		

	MEAN		σ	
WIND SPEED AT 1.25m	7.77	m/s	1.16	m/s
WIND DIRECTION AT 1.83m	314	°T	12	°T
ESTIMATED FETCH	2700	m		
AIR TEMPERATURE AT 2.25m	10.76	C		
AIR TEMPERATURE AT 0.50m	10.61	C		
WATER TEMPERATURE	12.72	C		

TABLE A III 1.19

FREQUENCY DISTRIBUTION
WATER LEVEL

RECORD 085

Mean = 10.42cm σ = 2.81 cm
ΔT = 0.2 sec N = 750

Interval (σ)	Frequency (Count)	Frequency (%)
-4.5		
-4.0		
-3.5		
-3.0	1	0.13
-2.5	15	2.00
-2.0	38	5.07
-1.5	62	8.27
-1.0	125	16.67
-0.5	144	19.20
0.5	125	16.67
1.0	115	15.33
1.5	72	9.60
2.0	43	5.73
2.5	9	1.20
3.0	1	0.13
3.5		
4.0		
4.5		

TABLE A III 1.20

FREQUENCY DISTRIBUTION
WATER LEVEL

RECORD 086

Mean = 10.34 cm σ = 2.78 cm
ΔT = 0.2 sec N = 870

Interval (σ)	Frequency (Count)	Frequency (%)
-4.5		
-4.0		
-3.5		
-3.0	4	0.46
-2.5	19	2.18
-2.0	41	4.71
-1.5	63	7.24
-1.0	141	16.21
-0.5	188	21.61
0.5	163	18.74
1.0	115	13.22
1.5	70	8.05
2.0	42	4.83
2.5	21	2.41
3.0	2	0.23
3.5	1	0.11
4.0		
4.5		

	MEAN		σ	
WIND SPEED AT 1.25m	7.87	m/s	1.31	m/s
WIND DIRECTION AT 1.83m	308	°T	9	°T
ESTIMATED FETCH	28.00	m		
AIR TEMPERATURE AT 2.25m	10.53	C		
AIR TEMPERATURE AT 0.50m	8.99	C		
WATER TEMPERATURE	12.70	C		

TABLE A III 1.21

FREQUENCY DISTRIBUTION WATER LEVEL

RECORD 087

Mean = 10.36 cm σ = 1.86 cm

ΔT = 0.2 sec N = 750

Interval (σ)	Frequency (Count)	Frequency (%)
-4.5		
-4.0		
-3.5	1	0.13
-3.0	9	1.20
-2.5	12	1.60
-2.0	28	3.73
-1.5	66	8.80
-1.0	114	15.20
-0.5	147	19.60
0.5	160	21.33
1.0	98	13.07
1.5	65	8.67
2.0	35	4.67
2.5	6	0.80
3.0	5	0.67
3.5	4	0.53
4.0		
4.5		

TABLE A III 1.22

FREQUENCY DISTRIBUTION WATER LEVEL

RECORD 088

Mean = 10.17 cm σ = 2.01 cm

ΔT = 0.2 sec N = 870

Interval (σ)	Frequency (Count)	Frequency (%)
-4.5		
-4.0	1	0.11
-3.5	3	0.34
-3.0	6	0.69
-2.5	17	1.95
-2.0	30	3.45
-1.5	69	7.93
-1.0	137	15.75
-0.5	162	18.62
0.5	201	23.10
1.0	115	13.22
1.5	65	7.47
2.0	42	4.83
2.5	18	2.07
3.0	4	0.46
3.5		
4.0		
4.5		

	MEAN	σ
WIND SPEED AT 1.25m	7.21 m/s	1.45 m/s
WIND DIRECTION AT 1.83m	302 °T	8 °T
ESTIMATED FETCH	2300 m	
AIR TEMPERATURE AT 2.25m	10.89 C	
AIR TEMPERATURE AT 0.50m	10.56 C	
WATER TEMPERATURE	12.79 C	

TABLE A III 1.23

FREQUENCY DISTRIBUTION
WATER LEVEL

RECORD 093

Mean = 10.55cm σ = 3.06 cm

ΔT = 0.2 sec N = 750

Interval (σ)	Frequency (Count)	Frequency (%)
-4.5		
-4.0		
-3.5		
-3.0	1	0.13
-2.5	18	2.40
-2.0	23	3.07
-1.5	74	9.87
-1.0	118	15.73
-0.5	149	19.87
0.5	156	20.80
1.0	109	14.53
1.5	46	6.13
2.0	28	3.73
2.5	19	2.53
3.0	6	0.80
3.5	2	0.27
4.0	1	0.13
4.5		

TABLE A III 1.24

FREQUENCY DISTRIBUTION
WATER LEVEL

RECORD 094

Mean = 10.13 cm σ = 3.36 cm

ΔT = 0.2 sec N = 860

Interval (σ)	Frequency (Count)	Frequency (%)
-4.5		
-4.0		
-3.5		
-3.0	2	0.23
-2.5	13	1.51
-2.0	39	4.53
-1.5	85	9.88
-1.0	133	15.47
-0.5	162	18.84
0.5	185	21.51
1.0	114	13.26
1.5	66	7.67
2.0	29	3.37
2.5	19	2.21
3.0	11	1.28
3.5	2	0.23
4.0		
4.5		

	MEAN	σ
WIND SPEED AT 1.25m	8.20 m/s	1.00 m/s
WIND DIRECTION AT 1.83m	305 °T	6 °T
ESTIMATED FETCH	2500 m	
AIR TEMPERATURE AT 2.25m	12.02 C	
AIR TEMPERATURE AT 0.50m	11.86 C	
WATER TEMPERATURE	12.87 C	

Gram-Charlier A-Series Three-Term Fits to Frequency Distributions of Water Heights

Figures AIII 2.01 to AIII 2.24 on pages AIII-40 to AIII-63 show how the first three terms of the Gram-Charlier A-series fit the empirical frequency distributions of water heights. Also showed are the Gaussian and the measured values. The measured values are histogramic and therefore correspond to the integrated values of the two curves. These integrated values usually lie so close to the curves that to avoid confusion they have not been entered. The probabilities showed for the chi-square values are based on eleven degrees of freedom for the Gaussian and nine for the Gram-Charlier.

Tables AIII 2.01 to AIII 2.24 on pages AIII-64 to AIII-87 show the corrections expressed in per cent to be added to the Gaussian to produce the three-term Gram-Charlier fits.

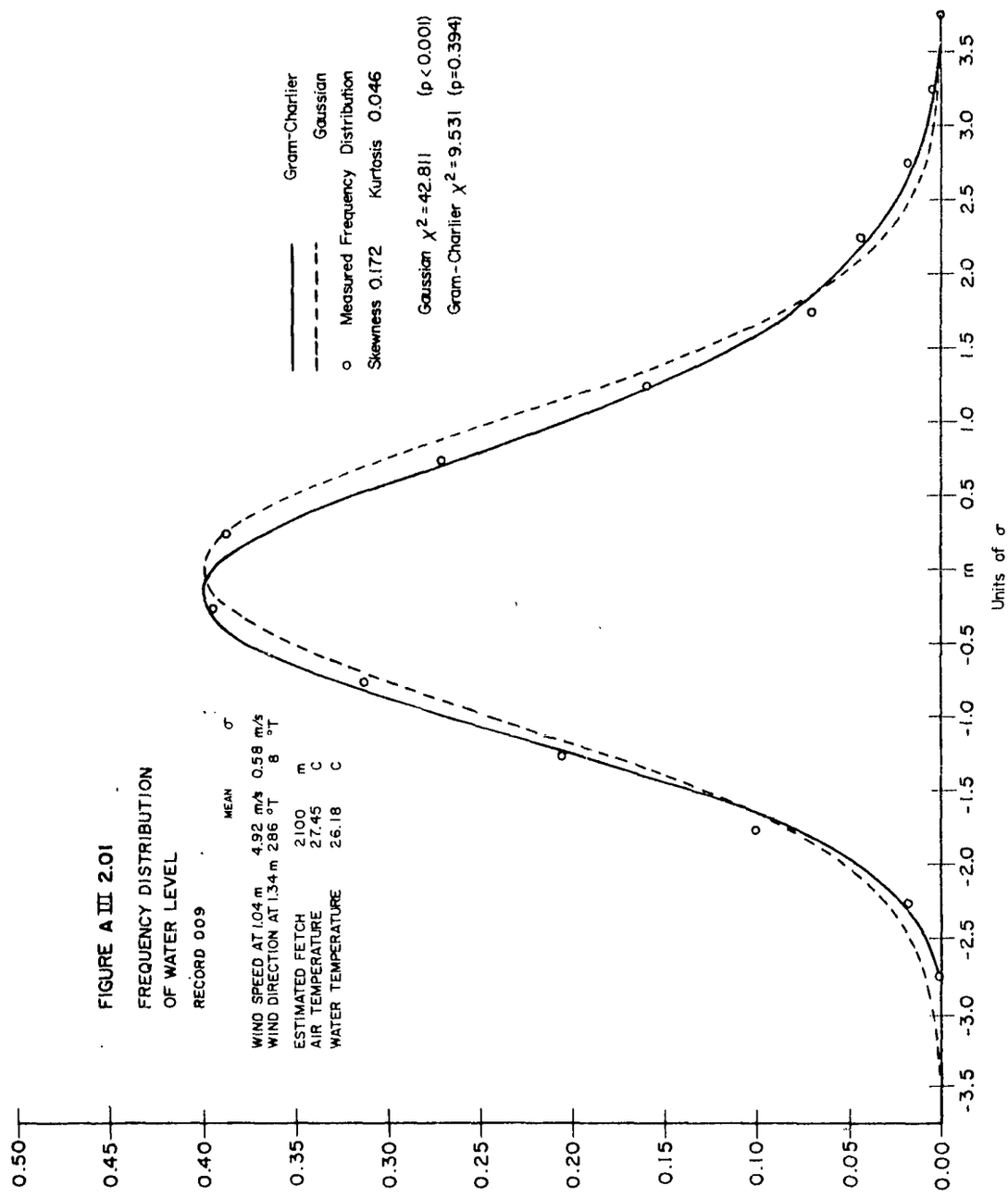


FIGURE A III 2.01
FREQUENCY DISTRIBUTION
OF WATER LEVEL
RECORD 009
MEAN σ
WIND SPEED AT 1.04 m 4.92 m/s 0.58 m/s
WIND DIRECTION AT 1.34 m 286 °T 8 °T
ESTIMATED FETCH 2100 m
AIR TEMPERATURE 27.45 C
WATER TEMPERATURE 26.18 C
Gram-Charlier
Gaussian
Measured Frequency Distribution
Skewness 0.172 Kurtosis 0.046
Gaussian χ^2 = 42.811 (p < 0.001)
Gram-Charlier χ^2 = 9.531 (p=0.394)
0.50
0.45
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
-3.5 -3.0 -2.5 -2.0 -1.5 -1.0 -0.5 m 0.5 1.0 1.5 2.0 2.5 3.0 3.5
Units of σ

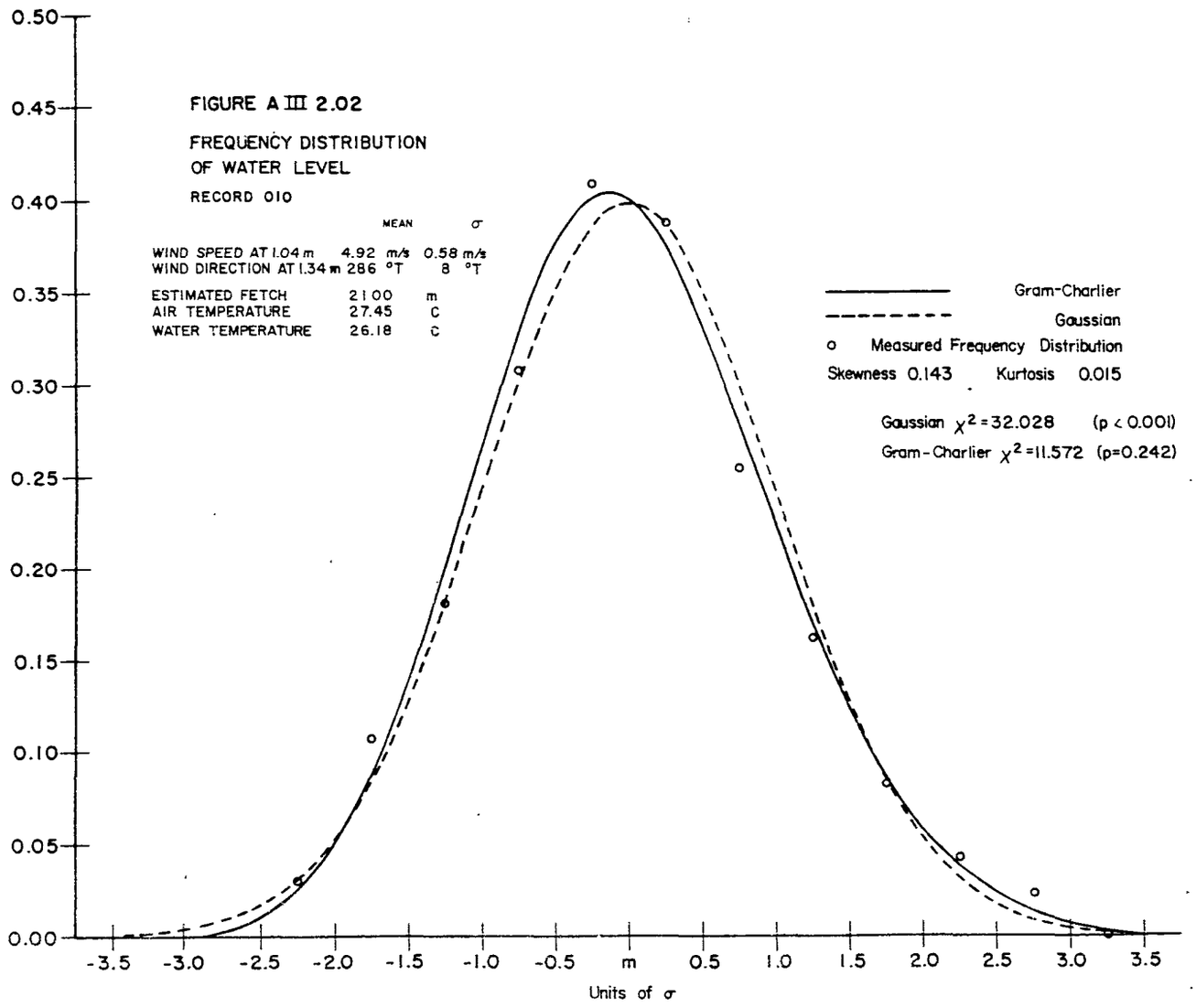


FIGURE A III 2.02
FREQUENCY DISTRIBUTION
OF WATER LEVEL
RECORD 010
MEAN σ
WIND SPEED AT 1.04 m 4.92 m/s 0.58 m/s
WIND DIRECTION AT 1.34 m 286 °T 8 °T
ESTIMATED FETCH 2100 m
AIR TEMPERATURE 27.45 C
WATER TEMPERATURE 26.18 C
Gram-Charlier
Gaussian
o Measured Frequency Distribution
Skewness 0.143 Kurtosis 0.015
Gaussian $\chi^2 = 32.028$ ($p < 0.001$)
Gram-Charlier $\chi^2 = 11.572$ ($p = 0.242$)
0.50
0.45
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
-3.5 -3.0 -2.5 -2.0 -1.5 -1.0 -0.5 m 0.5 1.0 1.5 2.0 2.5 3.0 3.5
Units of σ

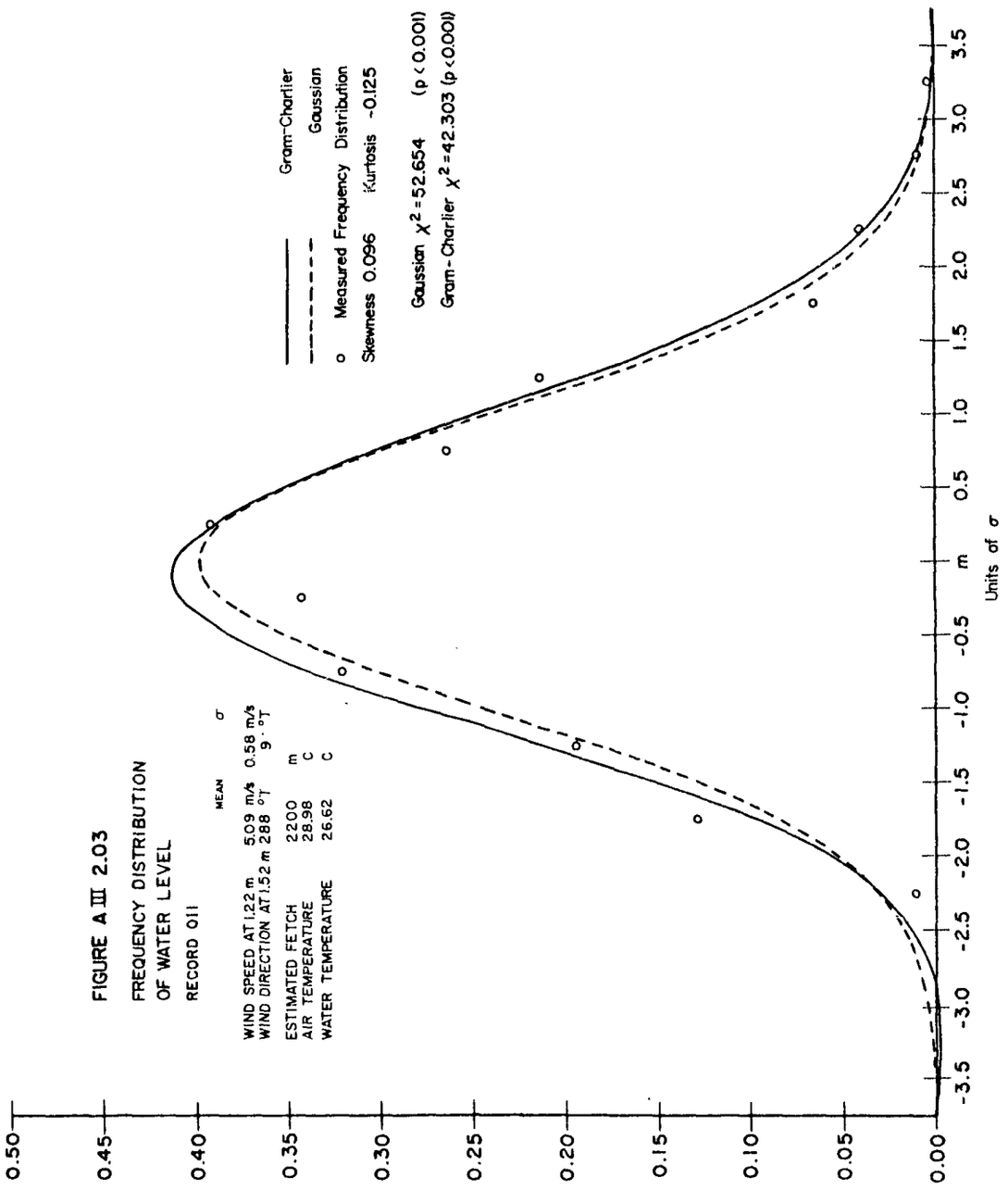


FIGURE A III 2.03
FREQUENCY DISTRIBUTION
OF WATER LEVEL
RECORD 011
MEAN σ
WIND SPEED AT 1.22 m 5.09 m/s 0.58 m/s
WIND DIRECTION AT 1.52 m 288 °T 9 °T
ESTIMATED FETCH 2200 m
AIR TEMPERATURE 28.98 C
WATER TEMPERATURE 26.62 C
Gram-Charlier
Gaussian
Measured Frequency Distribution
Skewness 0.096 Kurtosis -0.125
Gaussian χ² = 52.654 (p < 0.001)
Gram-Charlier χ² = 42.303 (p < 0.001)
0.50
0.45
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
-3.5 -3.0 -2.5 -2.0 -1.5 -1.0 -0.5 m 0.5 1.0 1.5 2.0 2.5 3.0 3.5
Units of σ

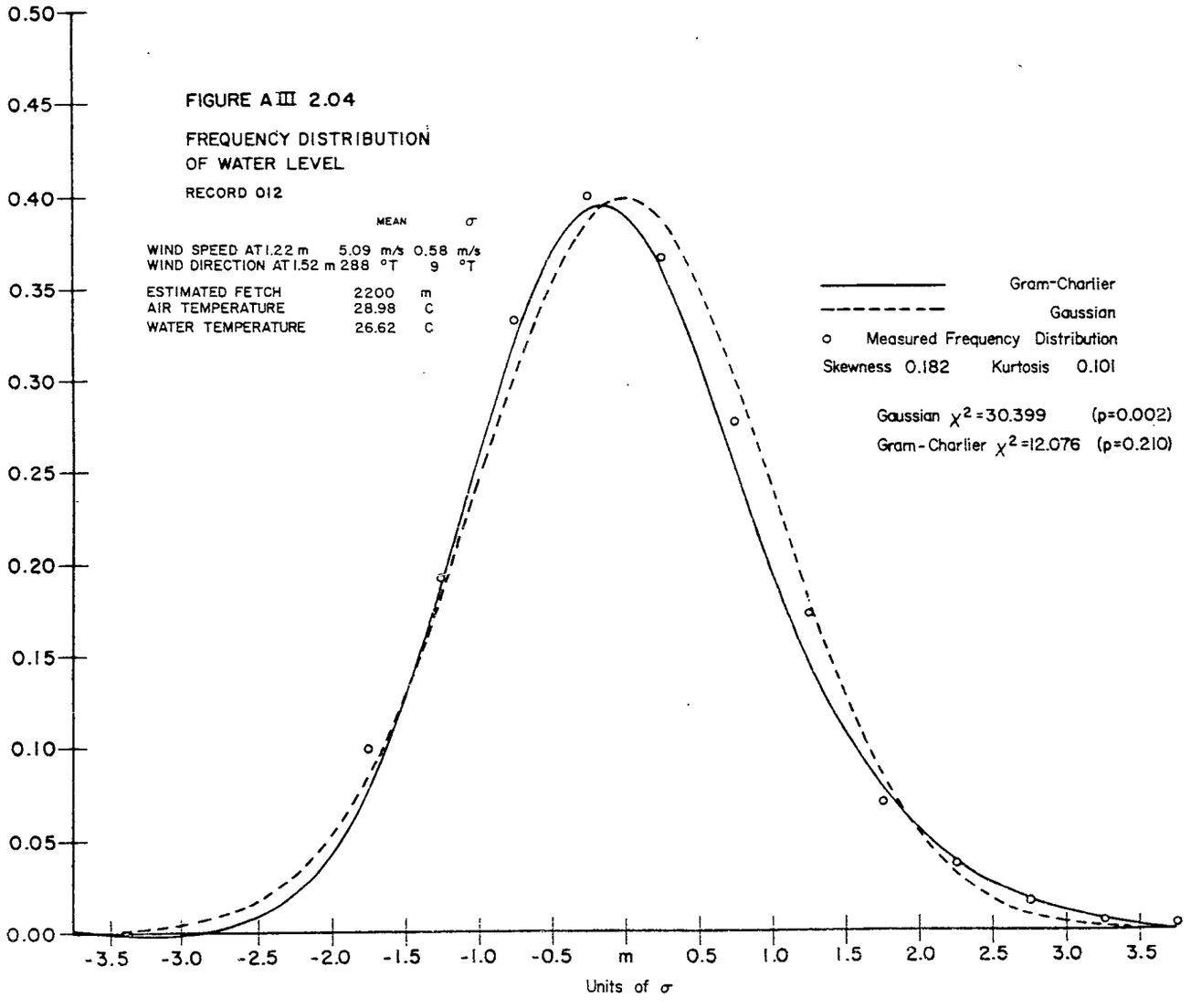


FIGURE A III 2.04
FREQUENCY DISTRIBUTION
OF WATER LEVEL
RECORD 012
MEAN σ
WIND SPEED AT 1.22 m 5.09 m/s 0.58 m/s
WIND DIRECTION AT 1.52 m 288 °T 9 °T
ESTIMATED FETCH 2200 m
AIR TEMPERATURE 28.98 C
WATER TEMPERATURE 26.62 C
Gram-Charlier
Gaussian
Measured Frequency Distribution
Skewness 0.182 Kurtosis 0.101
Gaussian χ^2 = 30.399 (p=0.002)
Gram-Charlier χ^2 = 12.076 (p=0.210)
0.50
0.45
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
-3.5 -3.0 -2.5 -2.0 -1.5 -1.0 -0.5 m 0.5 1.0 1.5 2.0 2.5 3.0 3.5
Units of σ

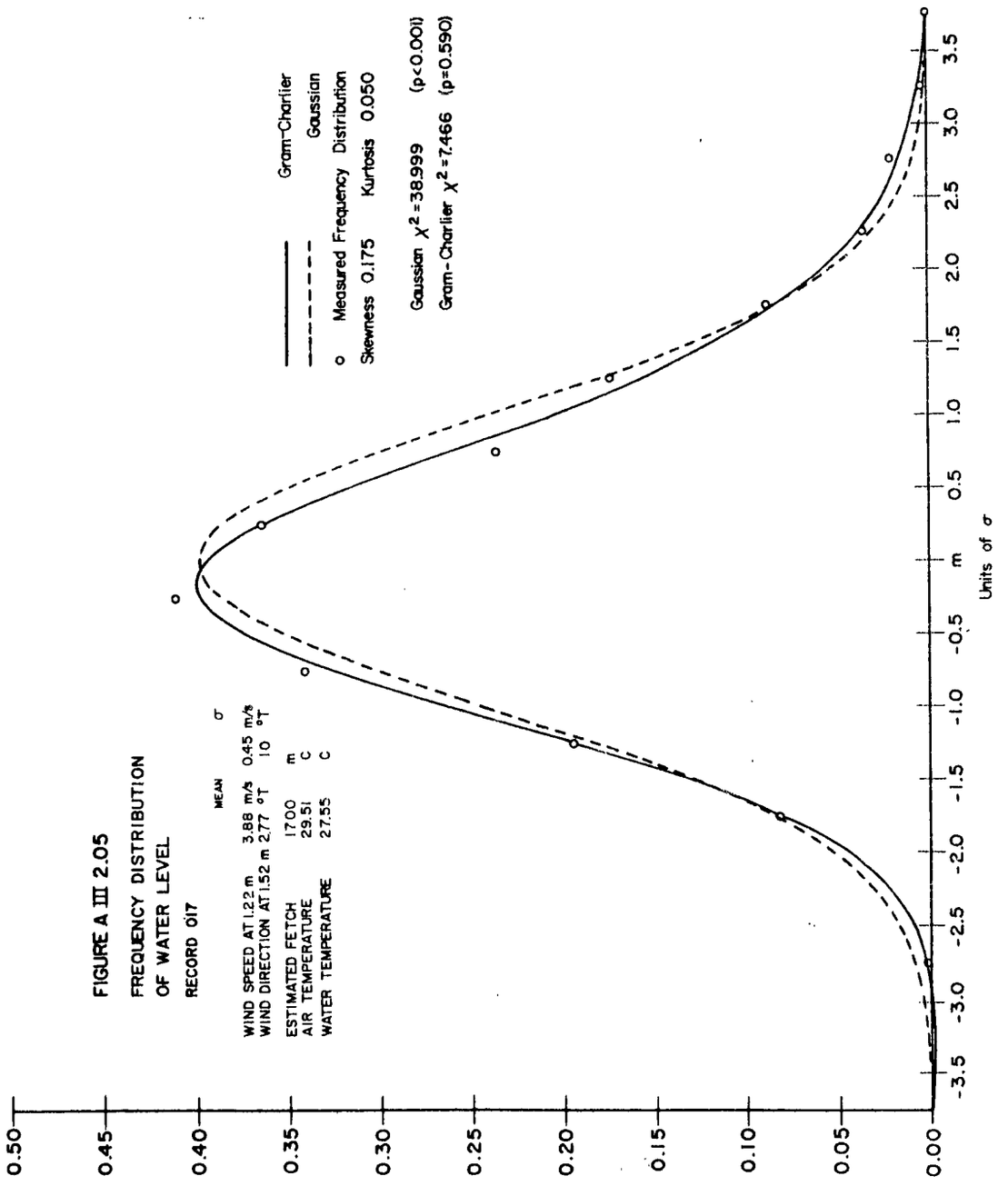


FIGURE A III 2.05
FREQUENCY DISTRIBUTION
OF WATER LEVEL
RECORD 017
MEAN σ
WIND SPEED AT 1.22 m 3.88 m/s 0.45 m/s
WIND DIRECTION AT 1.52 m 277 °T 10 °T
ESTIMATED FETCH 1700 m
AIR TEMPERATURE 29.5 C
WATER TEMPERATURE 27.55 C
Gram-Charlier
Gaussian
Measured Frequency Distribution
Skewness 0.175 Kurtosis 0.050
Gaussian χ^2=38.999 (p<0.001)
Gram-Charlier χ^2=7.466 (p=0.590)
0.50
0.45
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
-3.5 -3.0 -2.5 -2.0 -1.5 -1.0 -0.5 m 0.5 1.0 1.5 2.0 2.5 3.0 3.5
Units of σ

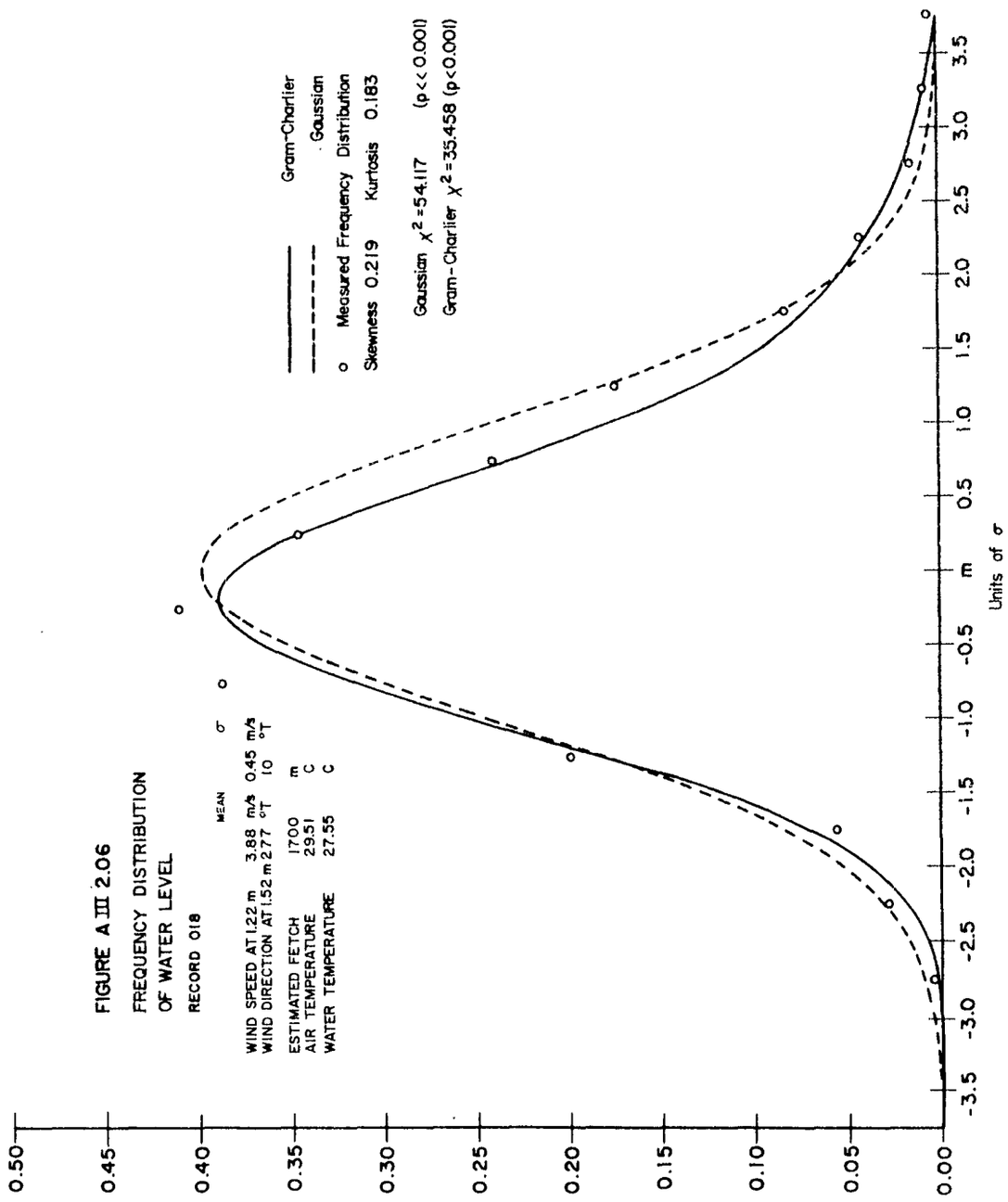


FIGURE A III 2.06
FREQUENCY DISTRIBUTION
OF WATER LEVEL
RECORD 018
MEAN σ
WIND SPEED AT 1.22 m 3.88 m/s 0.45 m/s
WIND DIRECTION AT 1.52 m 277 °T 10 °T
ESTIMATED FETCH 1700 m
AIR TEMPERATURE 29.51 C
WATER TEMPERATURE 27.55 C
Gram-Charlier
Gaussian
Measured Frequency Distribution
Skewness 0.219 Kurtosis 0.183
Gaussian χ^2=54.117 (p<<0.001)
Gram-Charlier χ^2=35.458 (p<0.001)
0.50
0.45
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
-3.5 -3.0 -2.5 -2.0 -1.5 -1.0 -0.5 m 0.5 1.0 1.5 2.0 2.5 3.0 3.5
Units of σ

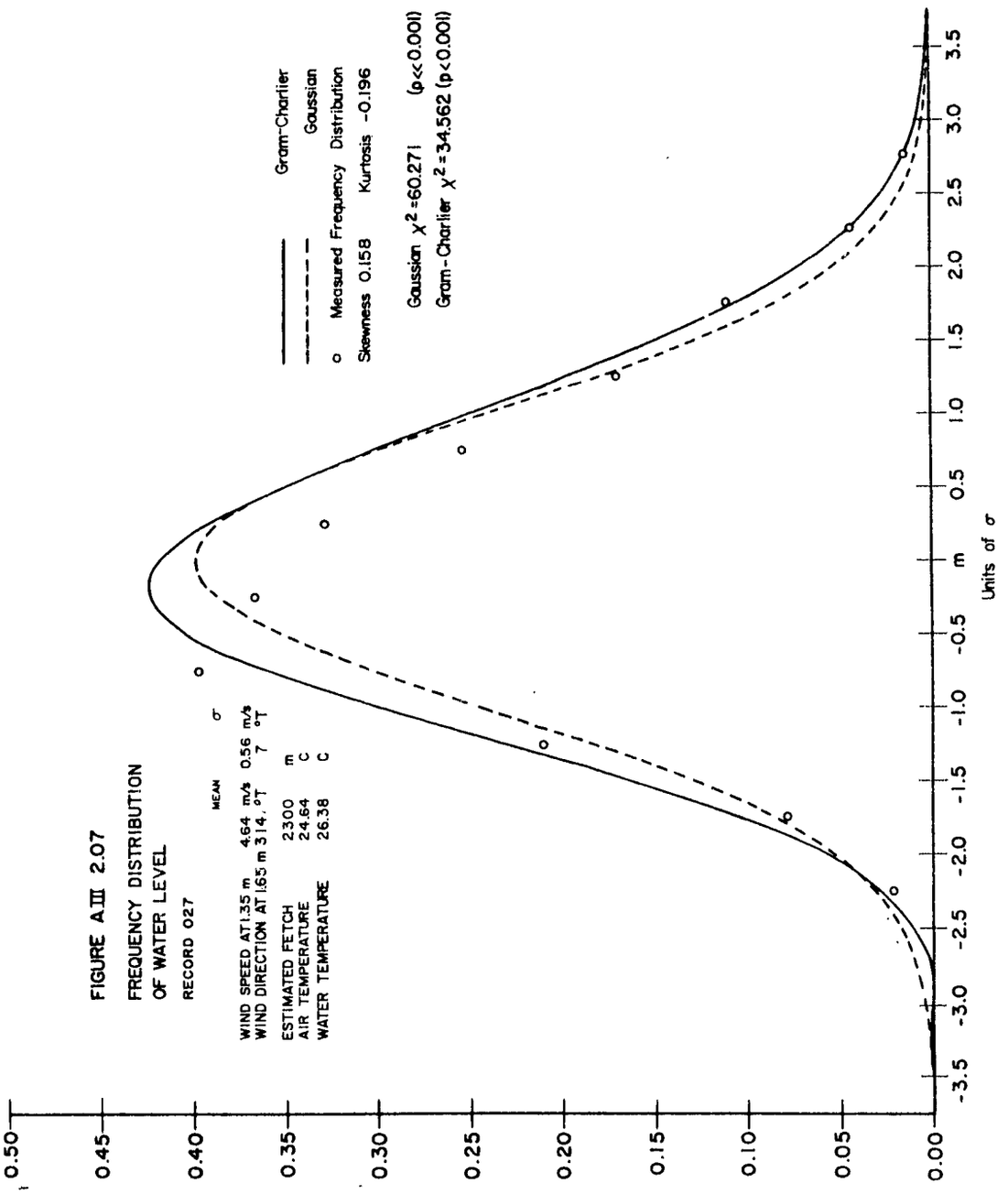


FIGURE A III 2.07
FREQUENCY DISTRIBUTION
OF WATER LEVEL
RECORD 027
MEAN σ
WIND SPEED AT 1.35 m 4.64 m/s 0.56 m/s
WIND DIRECTION AT 1.65 m 314. °T 7 °T
ESTIMATED FETCH 2300 m
AIR TEMPERATURE 24.64 C
WATER TEMPERATURE 26.38 C
Gram-Charlier
Gaussian
Measured Frequency Distribution
Skewness 0.158 Kurtosis -0.196
Gaussian χ^2 =60.271 (p<<0.001)
Gram-Charlier χ^2 =34.562 (p<0.001)
0.50
0.45
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
-3.5 -3.0 -2.5 -2.0 -1.5 -1.0 -0.5 m 0.5 1.0 1.5 2.0 2.5 3.0 3.5
Units of σ

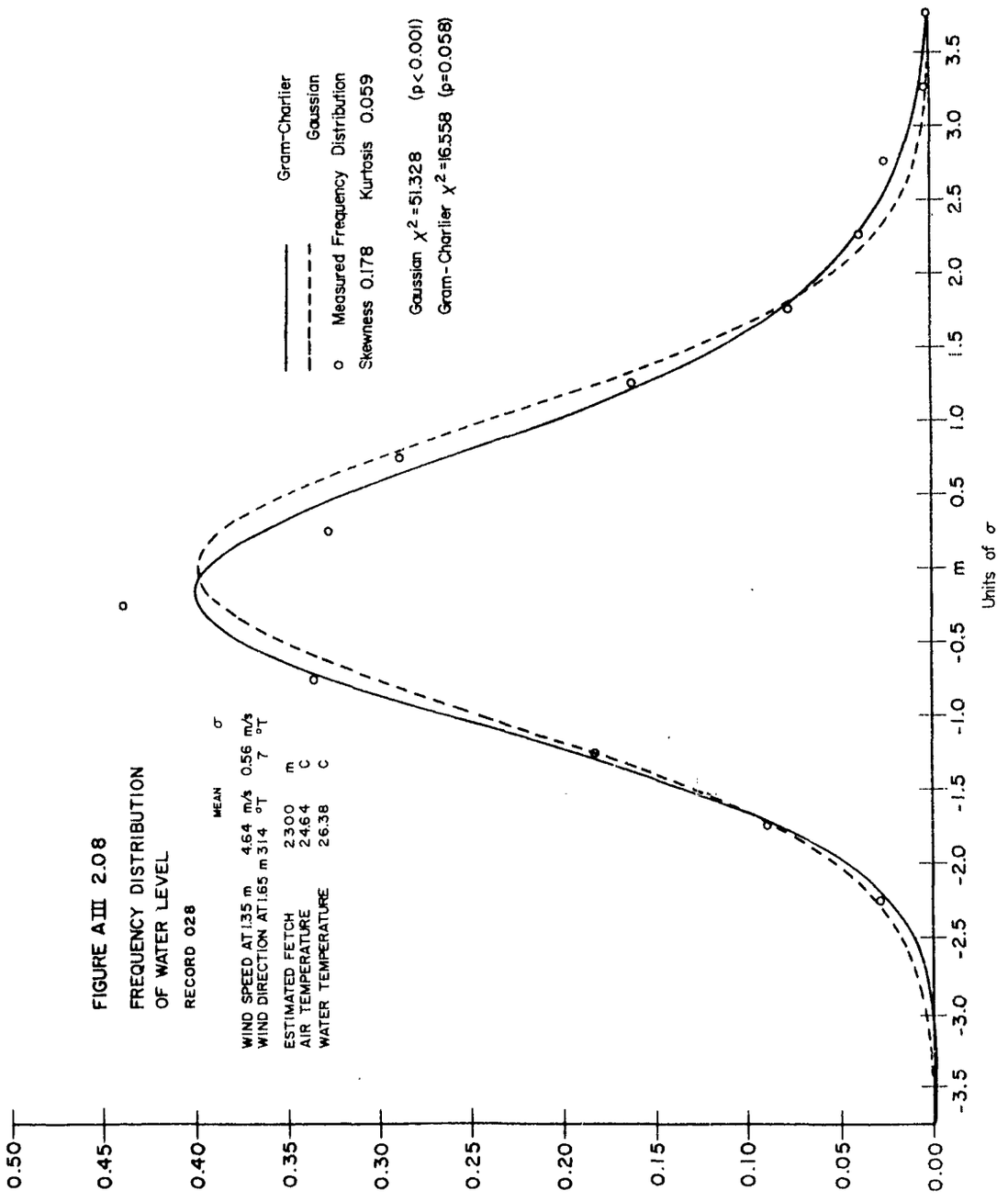


FIGURE A III 2.08
FREQUENCY DISTRIBUTION
OF WATER LEVEL
RECORD 028
MEAN σ
WIND SPEED AT 1.35 m 4.64 m/s 0.56 m/s
WIND DIRECTION AT 1.65 m 314 °T 7 °T
ESTIMATED FETCH 2300 m
AIR TEMPERATURE 24.64 C
WATER TEMPERATURE 26.38 C
Gram-Charlier
Gaussian
Measured Frequency Distribution
Skewness 0.178 Kurtosis 0.059
Gaussian χ^2 = 51.328 (p < 0.001)
Gram-Charlier χ^2 = 16.558 (p=0.058)
0.50
0.45
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
-3.5 -3.0 -2.5 -2.0 -1.5 -1.0 -0.5 m 0.5 1.0 1.5 2.0 2.5 3.0 3.5
Units of σ

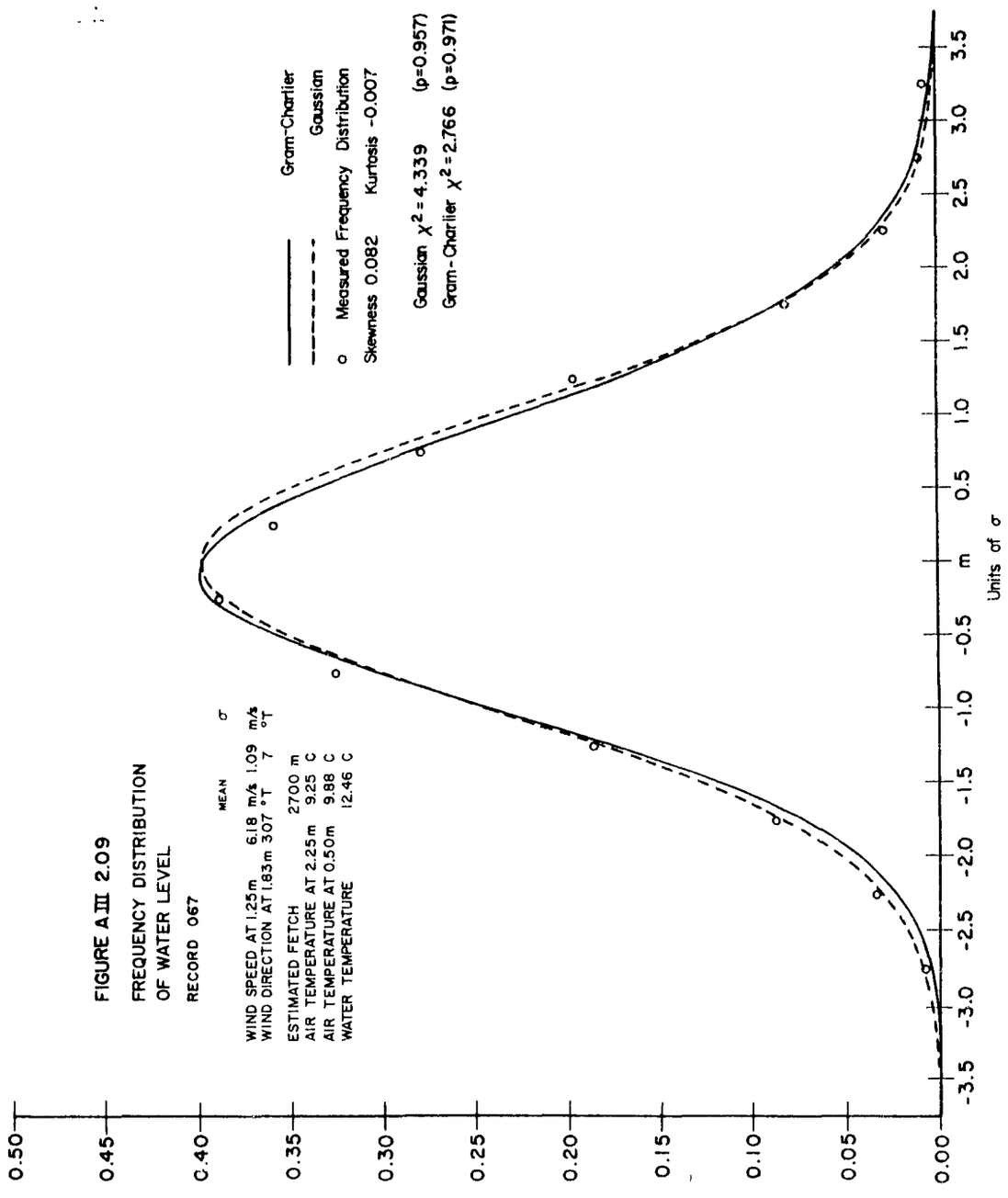


FIGURE A III 2.09
FREQUENCY DISTRIBUTION
OF WATER LEVEL
RECORD 067
MEAN σ
WIND SPEED AT 1.25m 6.18 m/s 1.09 m/s
WIND DIRECTION AT 1.83m 307 °T 7 °T
ESTIMATED FETCH 2700 m
AIR TEMPERATURE AT 2.25m 9.25 C
AIR TEMPERATURE AT 0.50m 9.88 C
WATER TEMPERATURE 12.46 C
Gram-Charlier
Gaussian
Measured Frequency Distribution
Skewness 0.082 Kurtosis -0.007
Gaussian $\chi^2 = 4.339$ (p=0.957)
Gram-Charlier $\chi^2 = 2.766$ (p=0.971)
0.50
0.45
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
-3.5 -3.0 -2.5 -2.0 -1.5 -1.0 -0.5 m 0.5 1.0 1.5 2.0 2.5 3.0 3.5
Units of σ

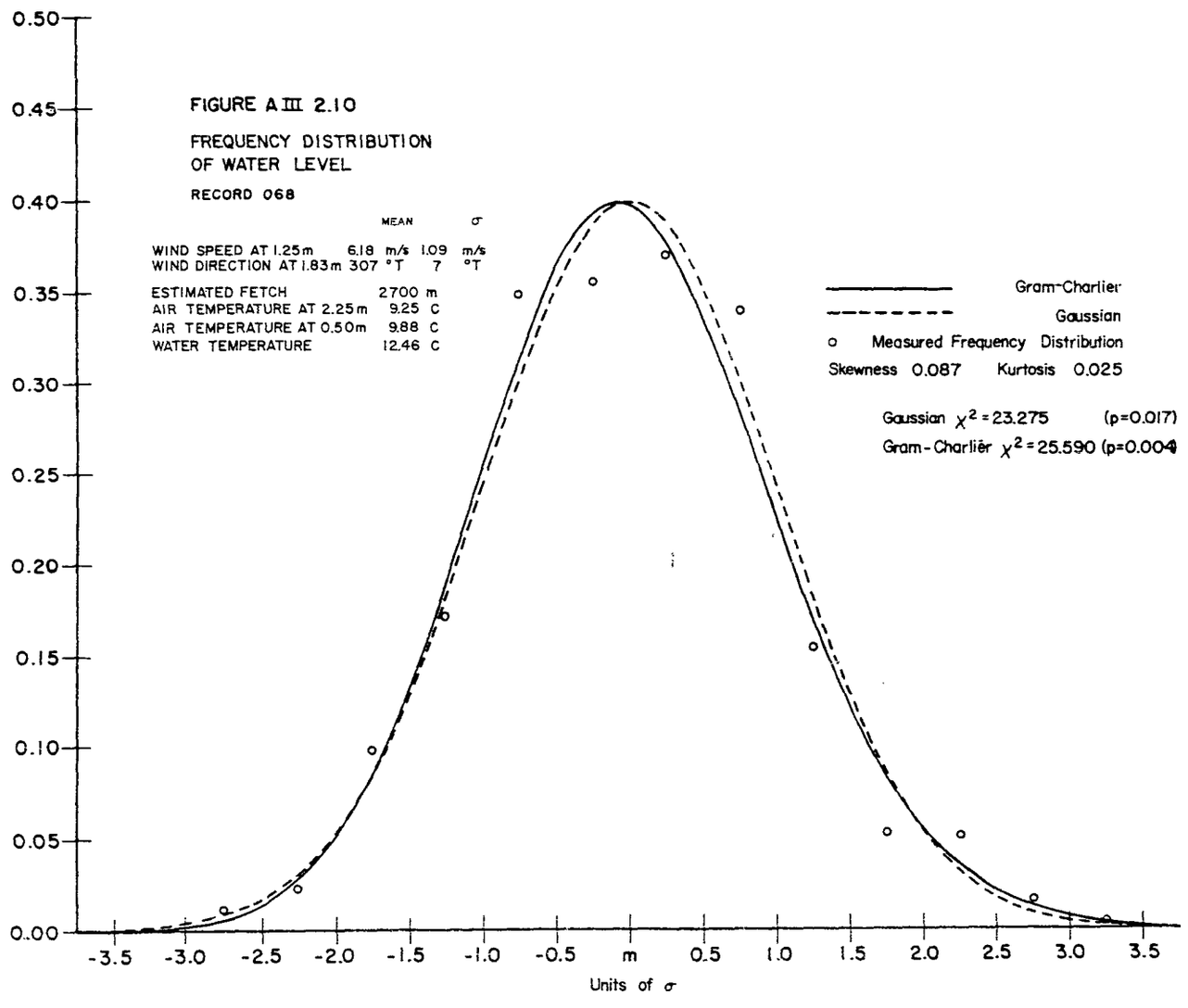


FIGURE A III 2.10
FREQUENCY DISTRIBUTION
OF WATER LEVEL
RECORD 068
MEAN σ
WIND SPEED AT 1.25m 6.18 m/s 1.09 m/s
WIND DIRECTION AT 1.83m 307 °T 7 °T
ESTIMATED FETCH 2700 m
AIR TEMPERATURE AT 2.25m 9.25 C
AIR TEMPERATURE AT 0.50m 9.88 C
WATER TEMPERATURE 12.46 C
Gram-Charlier
Gaussian
Measured Frequency Distribution
Skewness 0.087 Kurtosis 0.025
Gaussian χ^2 = 23.275 (p=0.017)
Gram-Charlier χ^2 = 25.590 (p=0.004)
0.50
0.45
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
-3.5 -3.0 -2.5 -2.0 -1.5 -1.0 -0.5 m 0.5 1.0 1.5 2.0 2.5 3.0 3.5
Units of σ

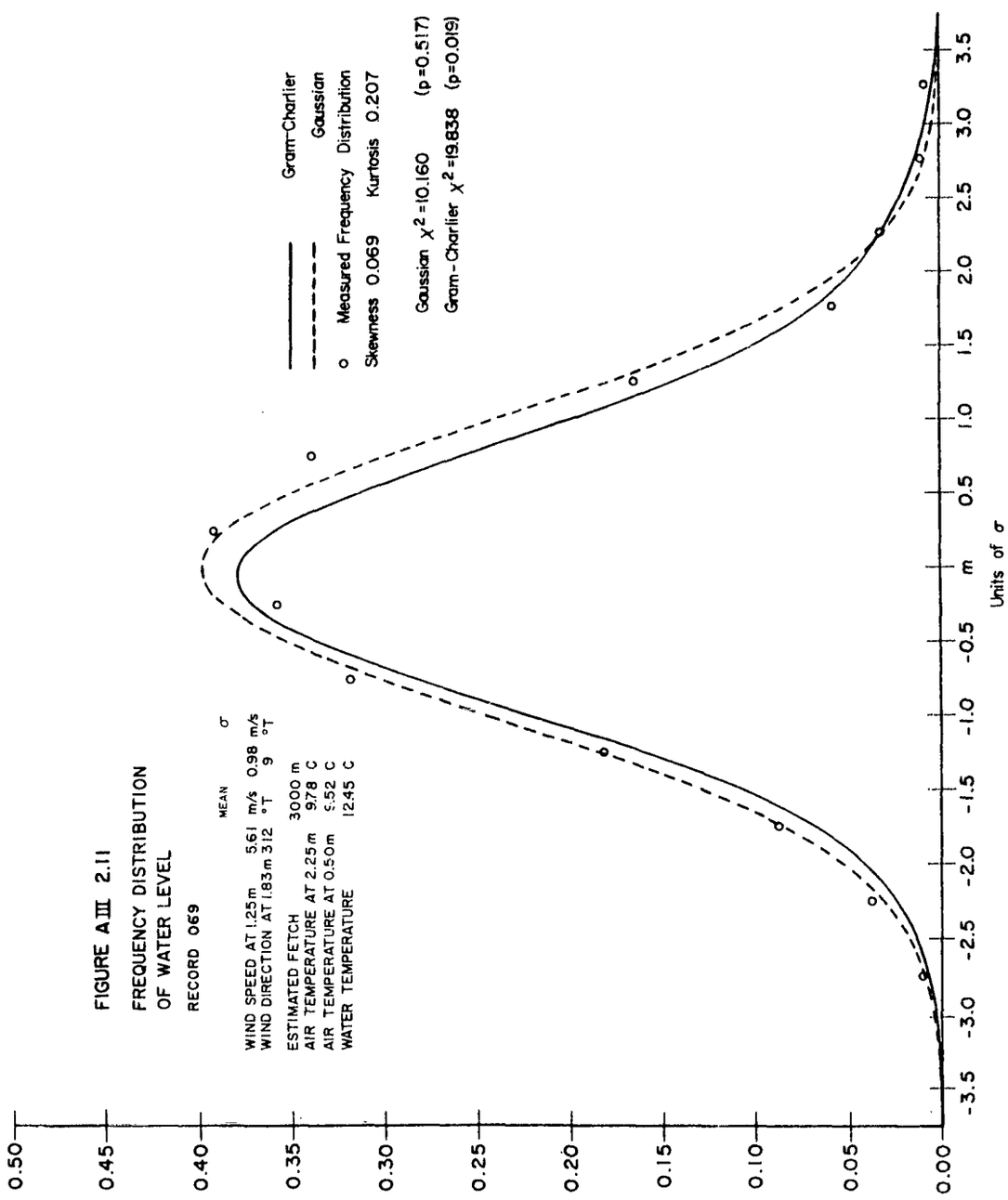


FIGURE A III 2.11
FREQUENCY DISTRIBUTION
OF WATER LEVEL
RECORD 069
MEAN σ
WIND SPEED AT 1.25m 5.61 m/s 0.98 m/s
WIND DIRECTION AT 1.83m 312 °T 9 °T
ESTIMATED FETCH 3000 m
AIR TEMPERATURE AT 2.25m 9.78 C
AIR TEMPERATURE AT 0.50m 5.52 C
WATER TEMPERATURE 12.45 C
Gram-Charlier
Gaussian
Measured Frequency Distribution
Skewness 0.069 Kurtosis 0.207
Gaussian χ^2=10.160 (p=0.517)
Gram-Charlier χ^2=19.838 (p=0.019)
0.50
0.45
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
-3.5 -3.0 -2.5 -2.0 -1.5 -1.0 -0.5 m 0.5 1.0 1.5 2.0 2.5 3.0 3.5
Units of σ

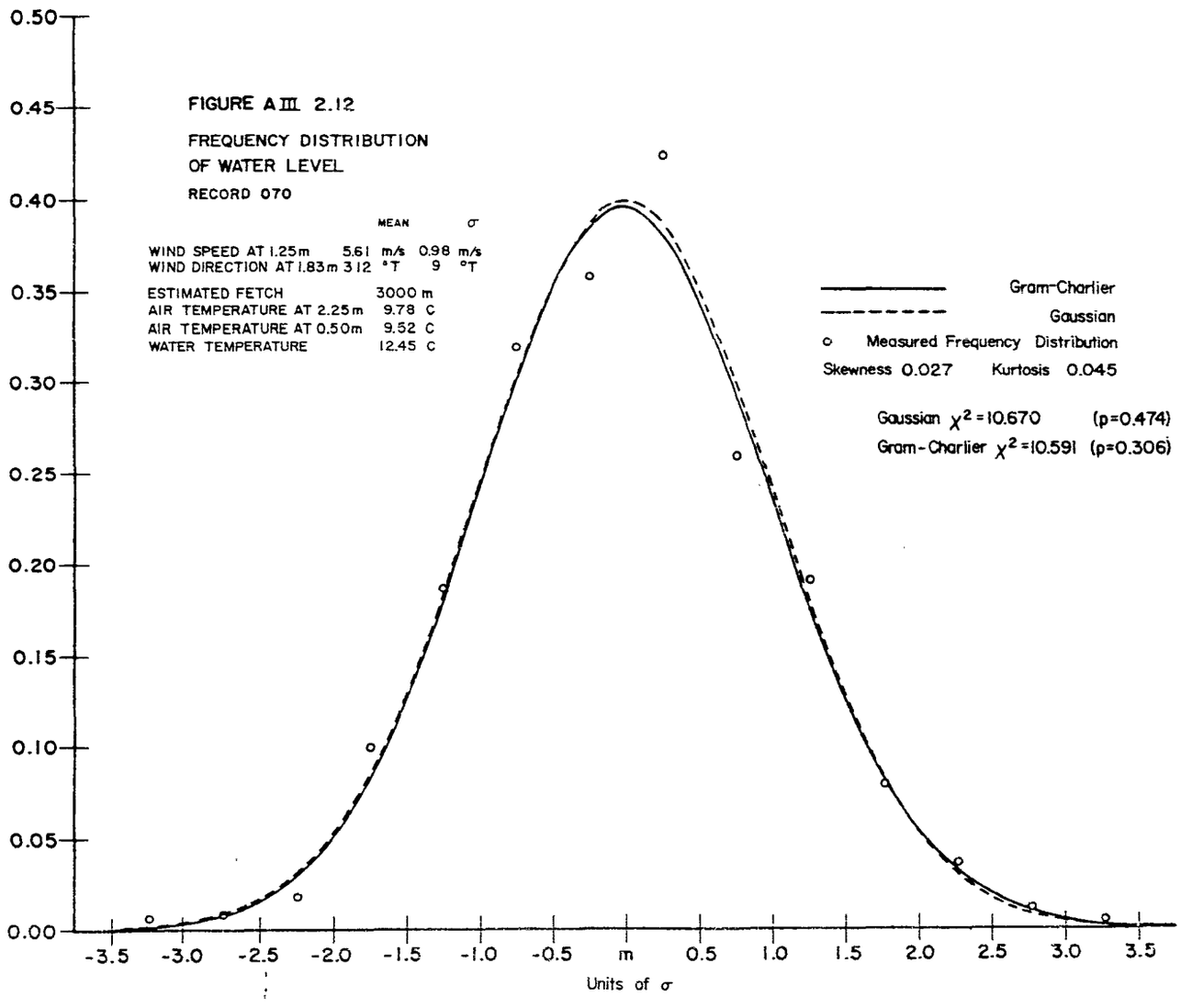


FIGURE A III 2.12
FREQUENCY DISTRIBUTION
OF WATER LEVEL
RECORD 070
MEAN σ
WIND SPEED AT 1.25m 5.61 m/s 0.98 m/s
WIND DIRECTION AT 1.83m 312 °T 9 °T
ESTIMATED FETCH 3000 m
AIR TEMPERATURE AT 2.25m 9.78 C
AIR TEMPERATURE AT 0.50m 9.52 C
WATER TEMPERATURE 12.45 C
Gram-Charlier
Gaussian
Measured Frequency Distribution
Skewness 0.027 Kurtosis 0.045
Gaussian χ^2 = 10.670 (p=0.474)
Gram-Charlier χ^2 = 10.591 (p=0.306)
0.50
0.45
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
-3.5 -3.0 -2.5 -2.0 -1.5 -1.0 -0.5 m 0.5 1.0 1.5 2.0 2.5 3.0 3.5
Units of σ

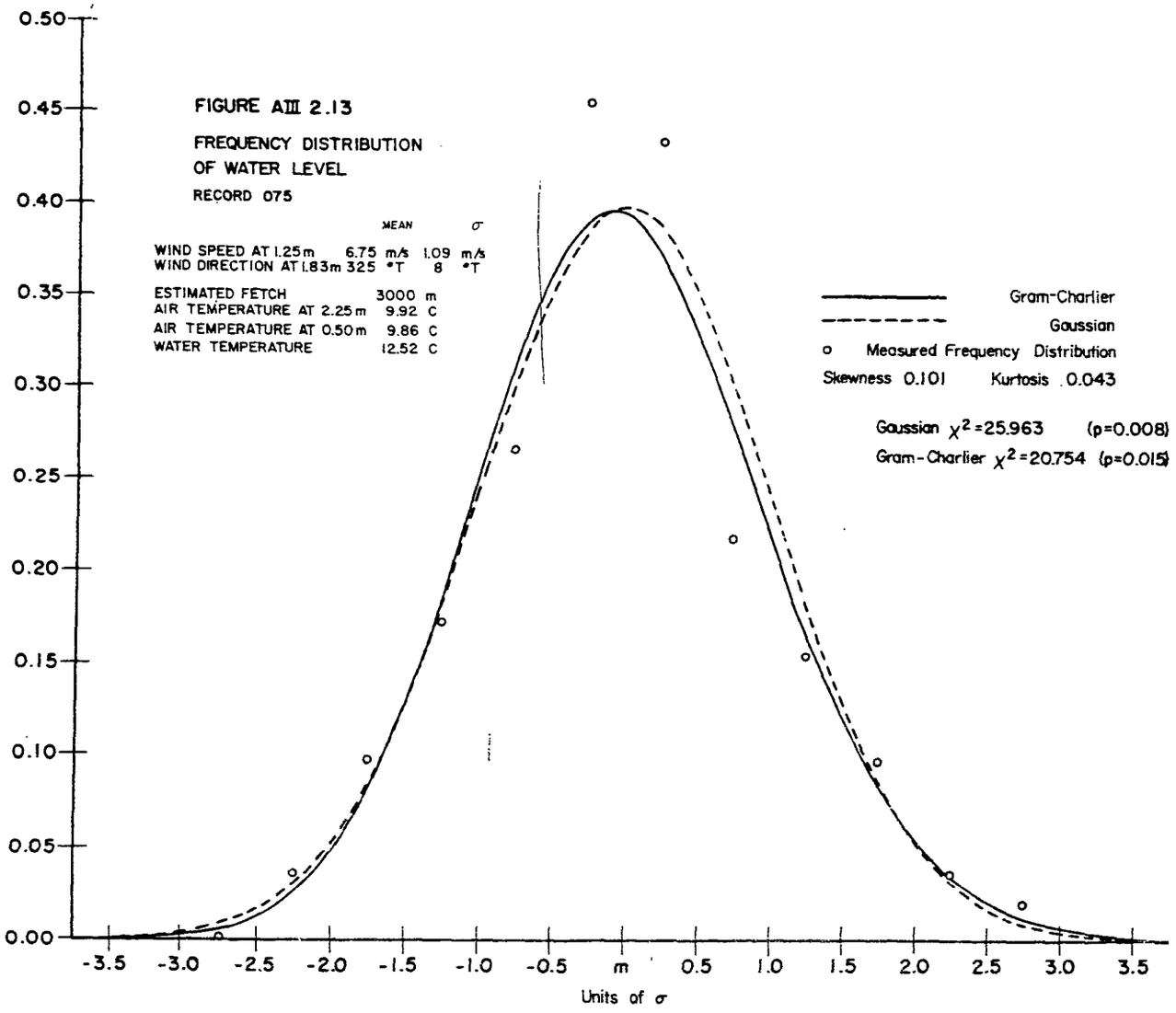


FIGURE AIII 2.13
FREQUENCY DISTRIBUTION
OF WATER LEVEL
RECORD 075
MEAN σ
WIND SPEED AT 1.25m 6.75 m/s 1.09 m/s
WIND DIRECTION AT 1.83m 325 °T 8 °T
ESTIMATED FETCH 3000 m
AIR TEMPERATURE AT 2.25m 9.92 C
AIR TEMPERATURE AT 0.50m 9.86 C
WATER TEMPERATURE 12.52 C
Gram-Charlier
Gaussian
Measured Frequency Distribution
Skewness 0.101 Kurtosis 0.043
Gaussian χ^2=25.963 (p=0.008)
Gram-Charlier χ^2=20.754 (p=0.015)
0.50
0.45
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
-3.5 -3.0 -2.5 -2.0 -1.5 -1.0 -0.5 m 0.5 1.0 1.5 2.0 2.5 3.0 3.5
Units of σ

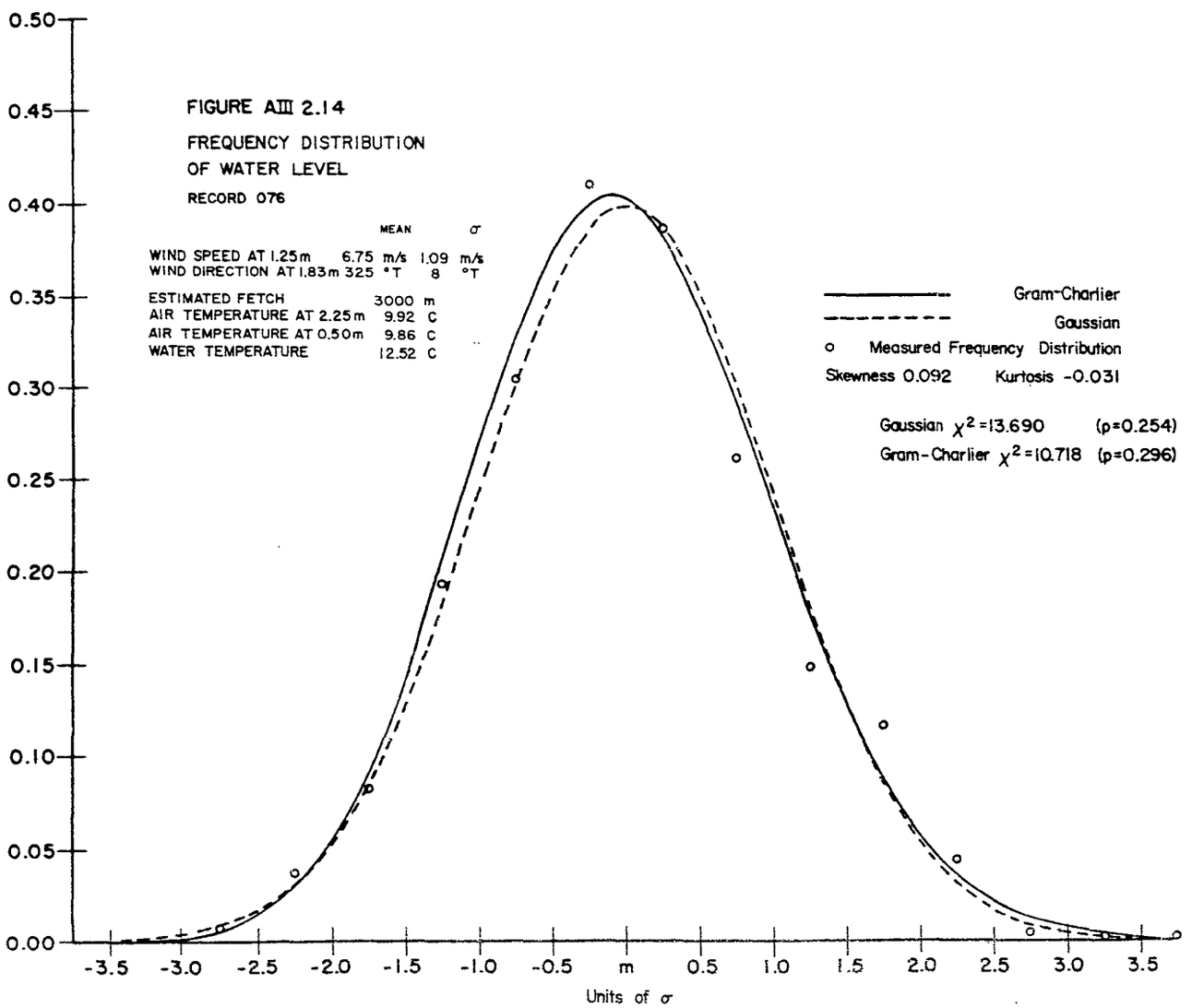


FIGURE AIII 2.14
FREQUENCY DISTRIBUTION
OF WATER LEVEL
RECORD 076
MEAN σ
WIND SPEED AT 1.25m 6.75 m/s 1.09 m/s
WIND DIRECTION AT 1.83m 325 °T 8 °T
ESTIMATED FETCH 3000 m
AIR TEMPERATURE AT 2.25m 9.92 C
AIR TEMPERATURE AT 0.50m 9.86 C
WATER TEMPERATURE 12.52 C
Gram-Charlier
Gaussian
Measured Frequency Distribution
Skewness 0.092 Kurtosis -0.031
Gaussian χ^2=13.690 (p=0.254)
Gram-Charlier χ^2=10.718 (p=0.296)
0.50
0.45
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
-3.5 -3.0 -2.5 -2.0 -1.5 -1.0 -0.5 m 0.5 1.0 1.5 2.0 2.5 3.0 3.5
Units of σ

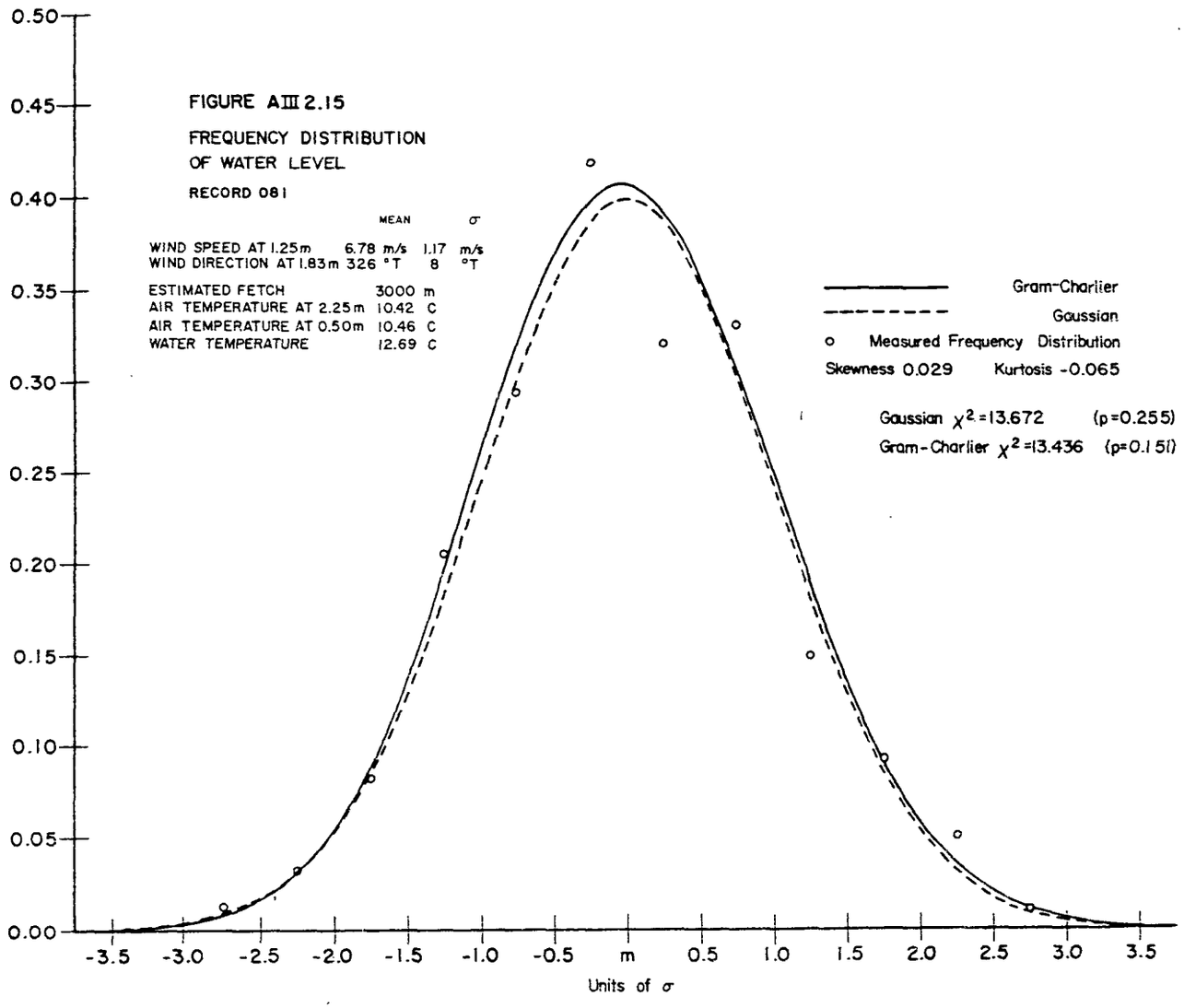


FIGURE AIII 2.15
FREQUENCY DISTRIBUTION
OF WATER LEVEL
RECORD 081
MEAN σ
WIND SPEED AT 1.25m 6.78 m/s 1.17 m/s
WIND DIRECTION AT 1.83m 326 °T 8 °T
ESTIMATED FETCH 3000 m
AIR TEMPERATURE AT 2.25m 10.42 C
AIR TEMPERATURE AT 0.50m 10.46 C
WATER TEMPERATURE 12.69 C
Gram-Charlier
Gaussian
Measured Frequency Distribution
Skewness 0.029 Kurtosis -0.065
Gaussian χ^2=13.672 (p=0.255)
Gram-Charlier χ^2=13.436 (p=0.151)
0.50
0.45
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
-3.5 -3.0 -2.5 -2.0 -1.5 -1.0 -0.5 m 0.5 1.0 1.5 2.0 2.5 3.0 3.5
Units of σ

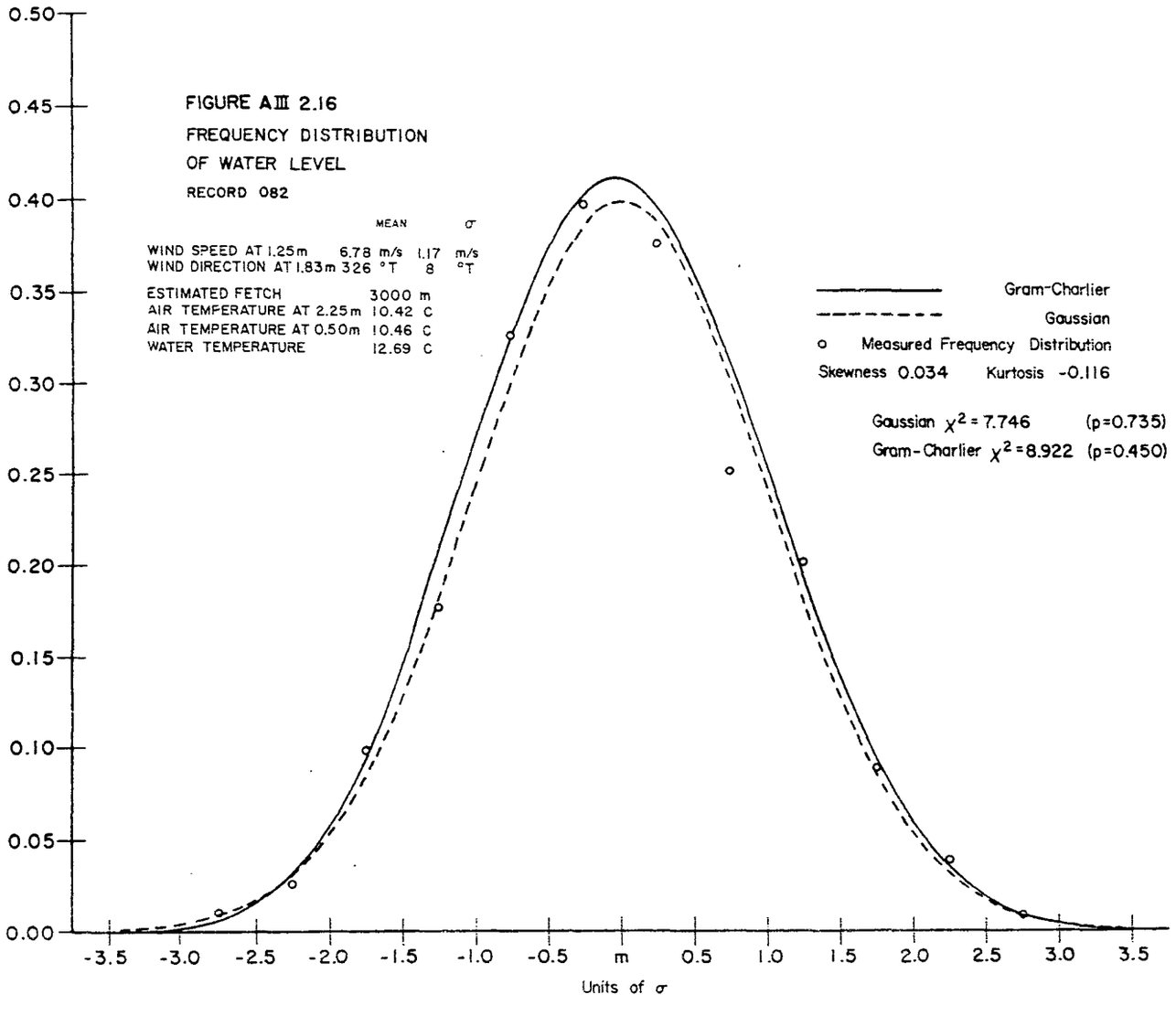


FIGURE AIII 2.16
FREQUENCY DISTRIBUTION
OF WATER LEVEL
RECORD 082
MEAN σ
WIND SPEED AT 1.25m 6.78 m/s 1.17 m/s
WIND DIRECTION AT 1.83m 326 °T 8 °T
ESTIMATED FETCH 3000 m
AIR TEMPERATURE AT 2.25m 10.42 C
AIR TEMPERATURE AT 0.50m 10.46 C
WATER TEMPERATURE 12.69 C
Gram-Charlier
Gaussian
Measured Frequency Distribution
Skewness 0.034 Kurtosis -0.116
Gaussian χ^2 = 7.746 (p=0.735)
Gram-Charlier χ^2 = 8.922 (p=0.450)
0.50
0.45
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
-3.5 -3.0 -2.5 -2.0 -1.5 -1.0 -0.5 m 0.5 1.0 1.5 2.0 2.5 3.0 3.5
Units of σ

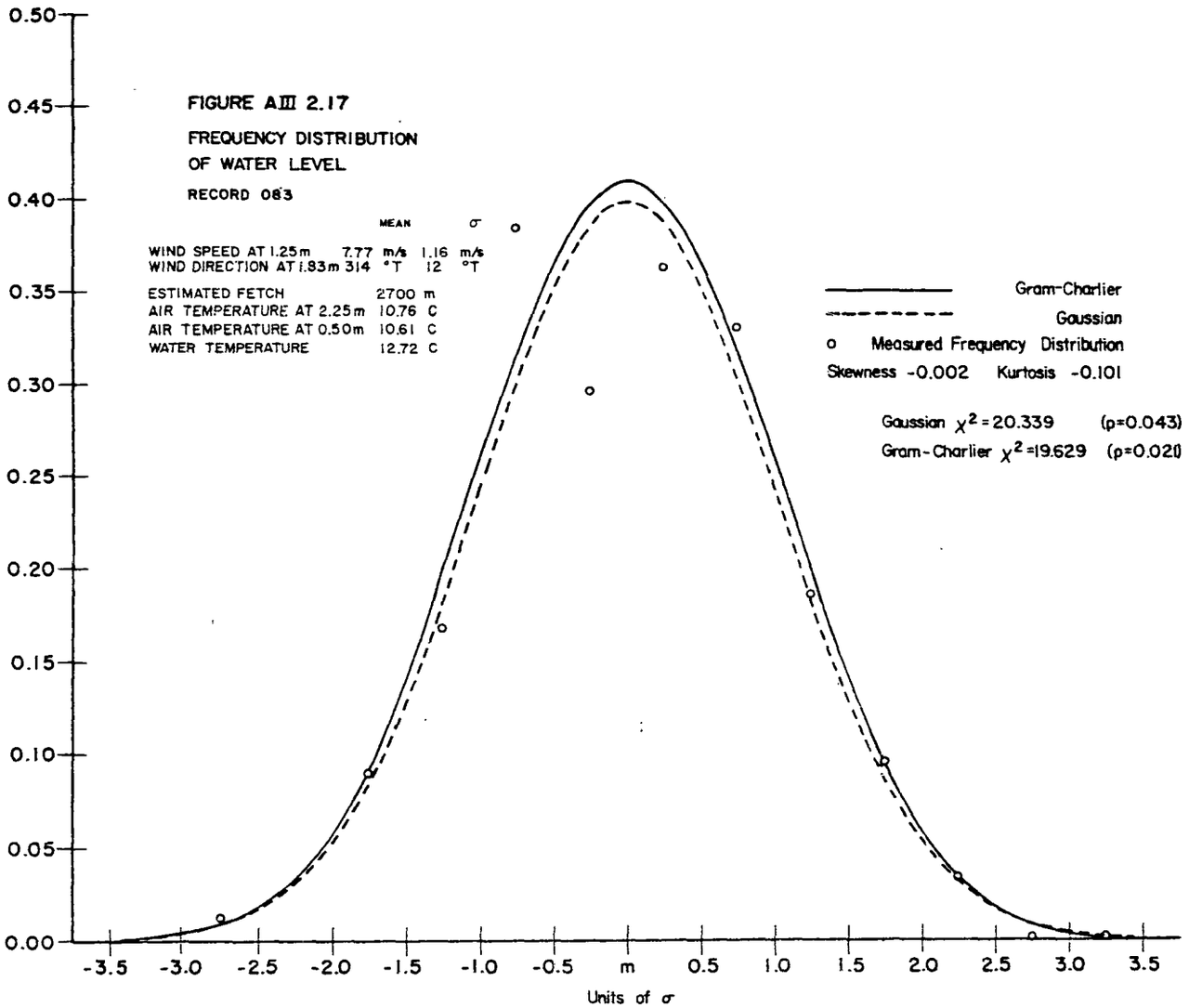


FIGURE AIII 2.17
FREQUENCY DISTRIBUTION
OF WATER LEVEL
RECORD 083
MEAN σ
WIND SPEED AT 1.25m 7.77 m/s 1.16 m/s
WIND DIRECTION AT 1.83m 314 °T 12 °T
ESTIMATED FETCH 2700 m
AIR TEMPERATURE AT 2.25m 10.76 C
AIR TEMPERATURE AT 0.50m 10.61 C
WATER TEMPERATURE 12.72 C
Gram-Charlier
Gaussian
Measured Frequency Distribution
Skewness -0.002 Kurtosis -0.101
Gaussian χ^2 = 20.339 (p=0.043)
Gram-Charlier χ^2 = 19.629 (p=0.021)
0.50
0.45
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
-3.5 -3.0 -2.5 -2.0 -1.5 -1.0 -0.5 m 0.5 1.0 1.5 2.0 2.5 3.0 3.5
Units of σ

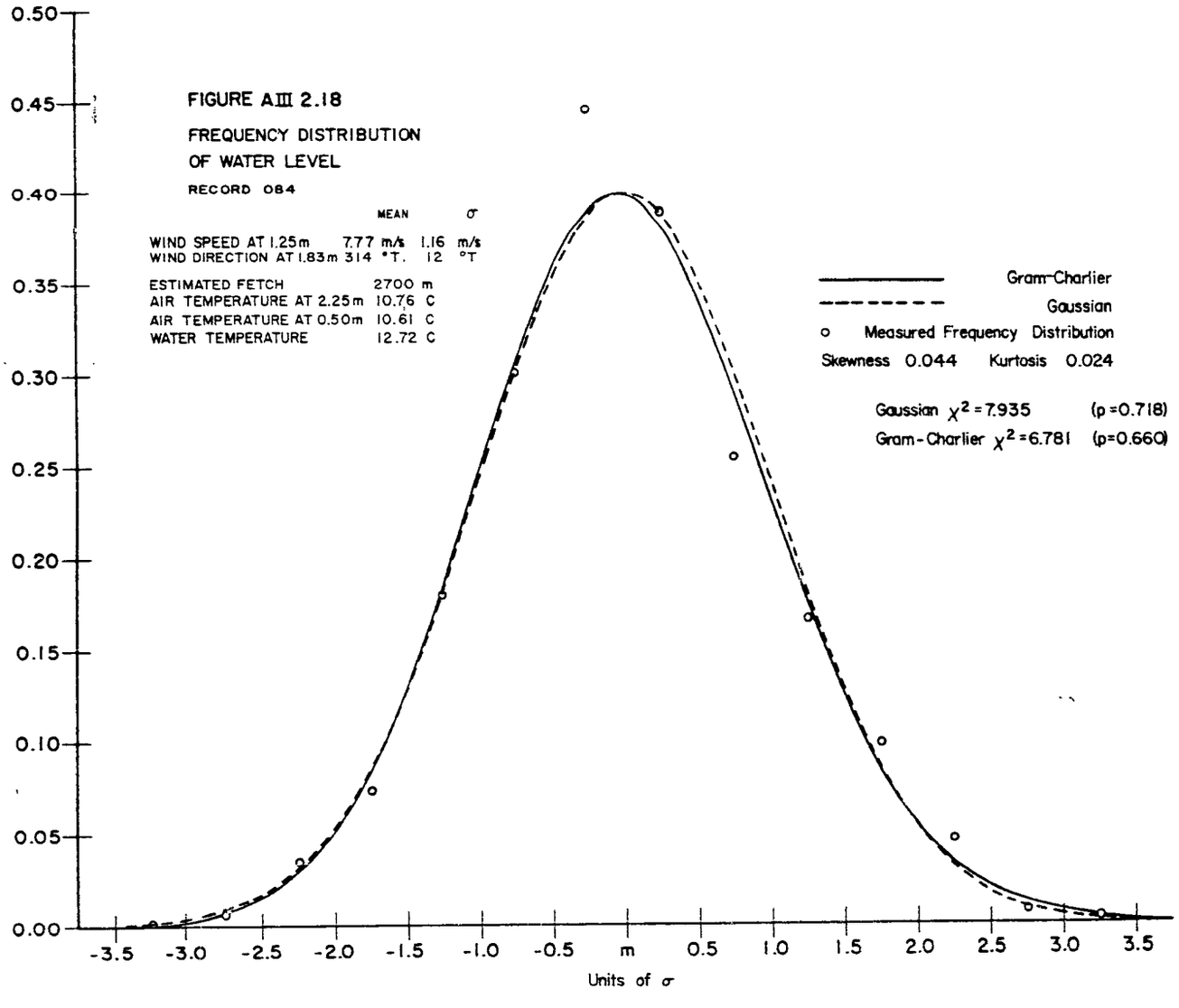


FIGURE AIII 2.18
FREQUENCY DISTRIBUTION
OF WATER LEVEL
RECORD 084
MEAN σ
WIND SPEED AT 1.25m 7.77 m/s 1.16 m/s
WIND DIRECTION AT 1.83m 314 °T. 12 °T
ESTIMATED FETCH 2700 m
AIR TEMPERATURE AT 2.25m 10.76 C
AIR TEMPERATURE AT 0.50m 10.61 C
WATER TEMPERATURE 12.72 C
Gram-Charlier
Gaussian
Measured Frequency Distribution
Skewness 0.044 Kurtosis 0.024
Gaussian χ^2 = 7.935 (p = 0.718)
Gram-Charlier χ^2 = 6.781 (p = 0.660)
0.50
0.45
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
-3.5 -3.0 -2.5 -2.0 -1.5 -1.0 -0.5 m 0.5 1.0 1.5 2.0 2.5 3.0 3.5
Units of σ

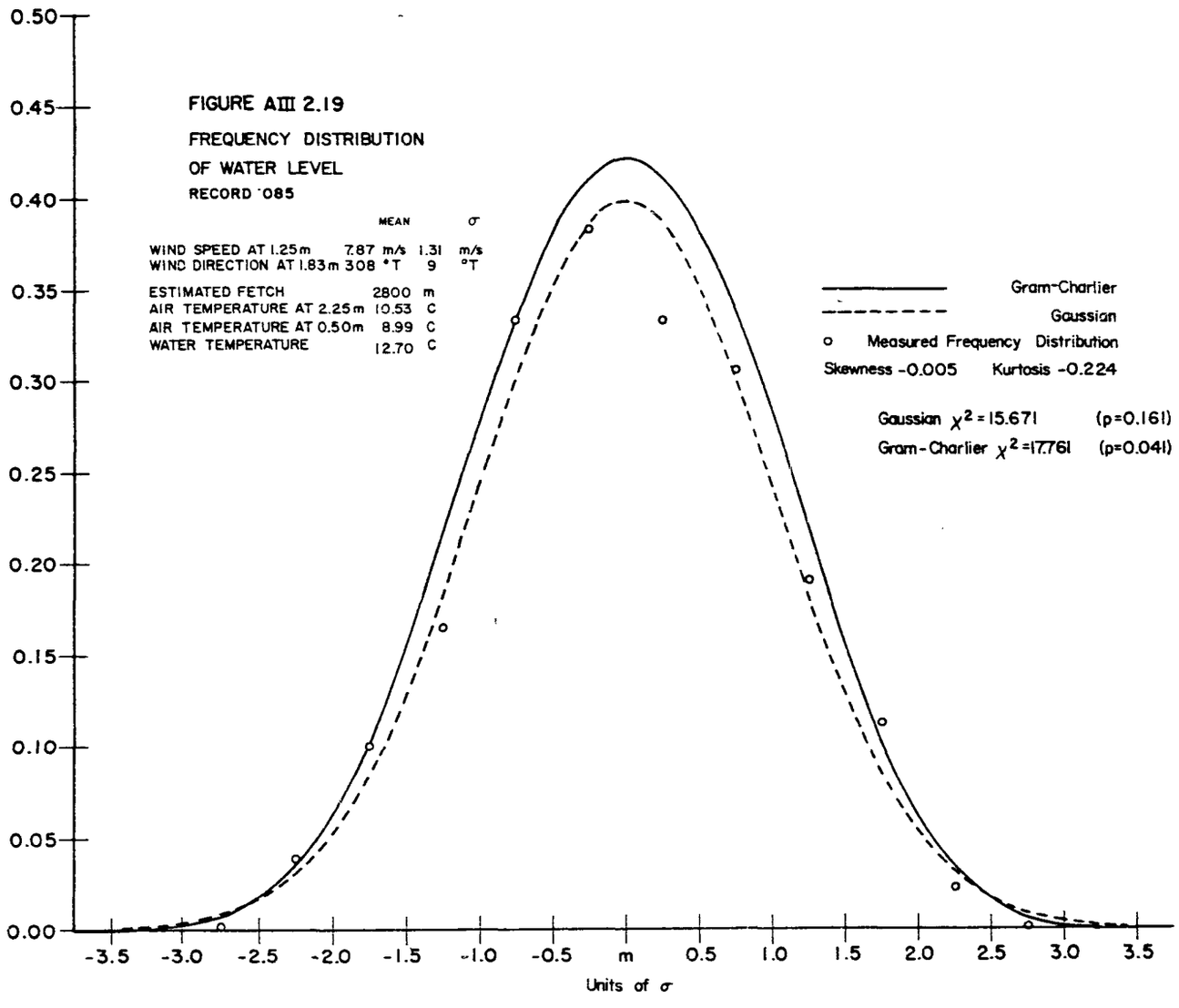


FIGURE AIII 2.19
FREQUENCY DISTRIBUTION
OF WATER LEVEL
RECORD 085
MEAN σ
WIND SPEED AT 1.25m 7.87 m/s 1.31 m/s
WIND DIRECTION AT 1.83m 308 °T 9 °T
ESTIMATED FETCH 2800 m
AIR TEMPERATURE AT 2.25m 10.53 C
AIR TEMPERATURE AT 0.50m 8.99 C
WATER TEMPERATURE 12.70 C
Gram-Charlier
Gaussian
Measured Frequency Distribution
Skewness -0.005 Kurtosis -0.224
Gaussian χ^2 = 15.671 (p=0.161)
Gram-Charlier χ^2 = 17.761 (p=0.041)
0.50
0.45
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
-3.5 -3.0 -2.5 -2.0 -1.5 -1.0 -0.5 m 0.5 1.0 1.5 2.0 2.5 3.0 3.5
Units of σ

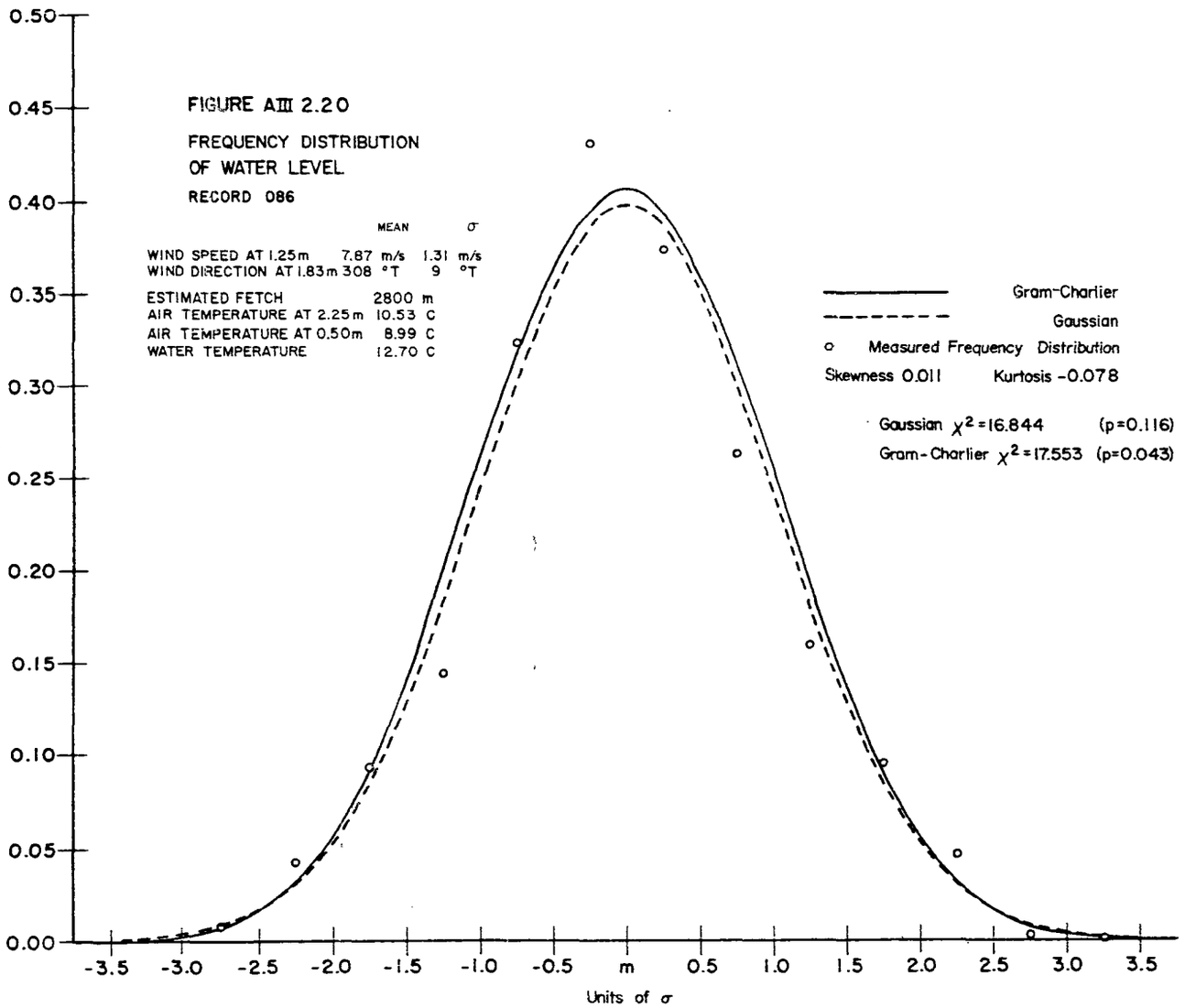


FIGURE AIII 2.20
FREQUENCY DISTRIBUTION
OF WATER LEVEL
RECORD 086
MEAN σ
WIND SPEED AT 1.25m 7.87 m/s 1.31 m/s
WIND DIRECTION AT 1.83m 308 °T 9 °T
ESTIMATED FETCH 2800 m
AIR TEMPERATURE AT 2.25m 10.53 C
AIR TEMPERATURE AT 0.50m 8.99 C
WATER TEMPERATURE 12.70 C
Gram-Charlier
Gaussian
Measured Frequency Distribution
Skewness 0.011 Kurtosis -0.078
Gaussian χ^2=16.844 (p=0.116)
Gram-Charlier χ^2=17.553 (p=0.043)
0.50
0.45
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
-3.5 -3.0 -2.5 -2.0 -1.5 -1.0 -0.5 m 0.5 1.0 1.5 2.0 2.5 3.0 3.5
Units of σ

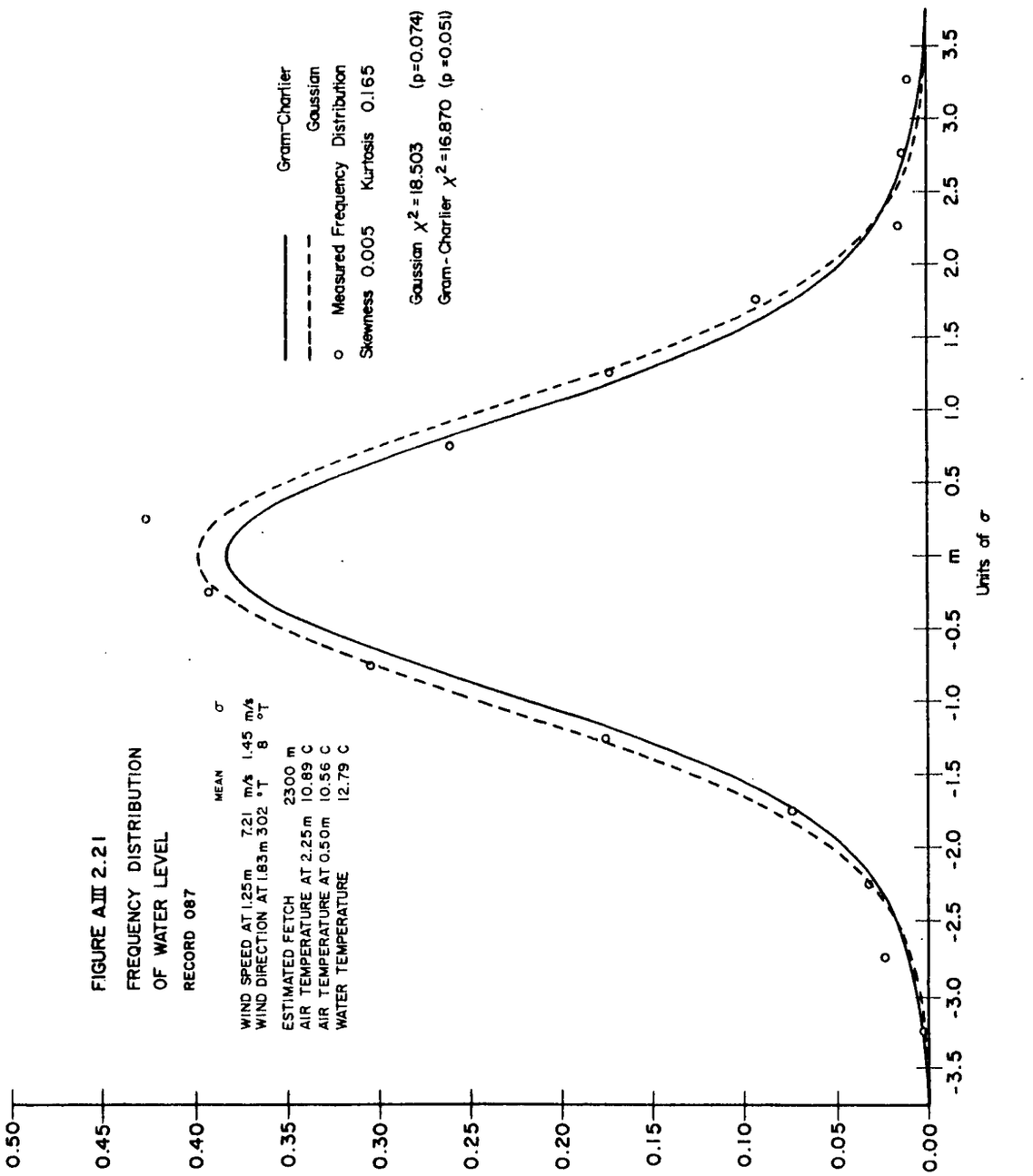


FIGURE A III 2.21
FREQUENCY DISTRIBUTION
OF WATER LEVEL
RECORD 087
MEAN σ
WIND SPEED AT 1.25m 7.21 m/s 1.45 m/s
WIND DIRECTION AT 1.83m 302 °T 8 °T
ESTIMATED FETCH 2300 m
AIR TEMPERATURE AT 2.25m 10.89 C
AIR TEMPERATURE AT 0.50m 10.56 C
WATER TEMPERATURE 12.79 C
Gram-Charlier
Gaussian
Measured Frequency Distribution
Skewness 0.005 Kurtosis 0.165
Gaussian χ^2 = 18.503 (p=0.074)
Gram-Charlier χ^2 = 16.870 (p =0.051)
0.50
0.45
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
-3.5 -3.0 -2.5 -2.0 -1.5 -1.0 -0.5 m 0.5 1.0 1.5 2.0 2.5 3.0 3.5
Units of σ

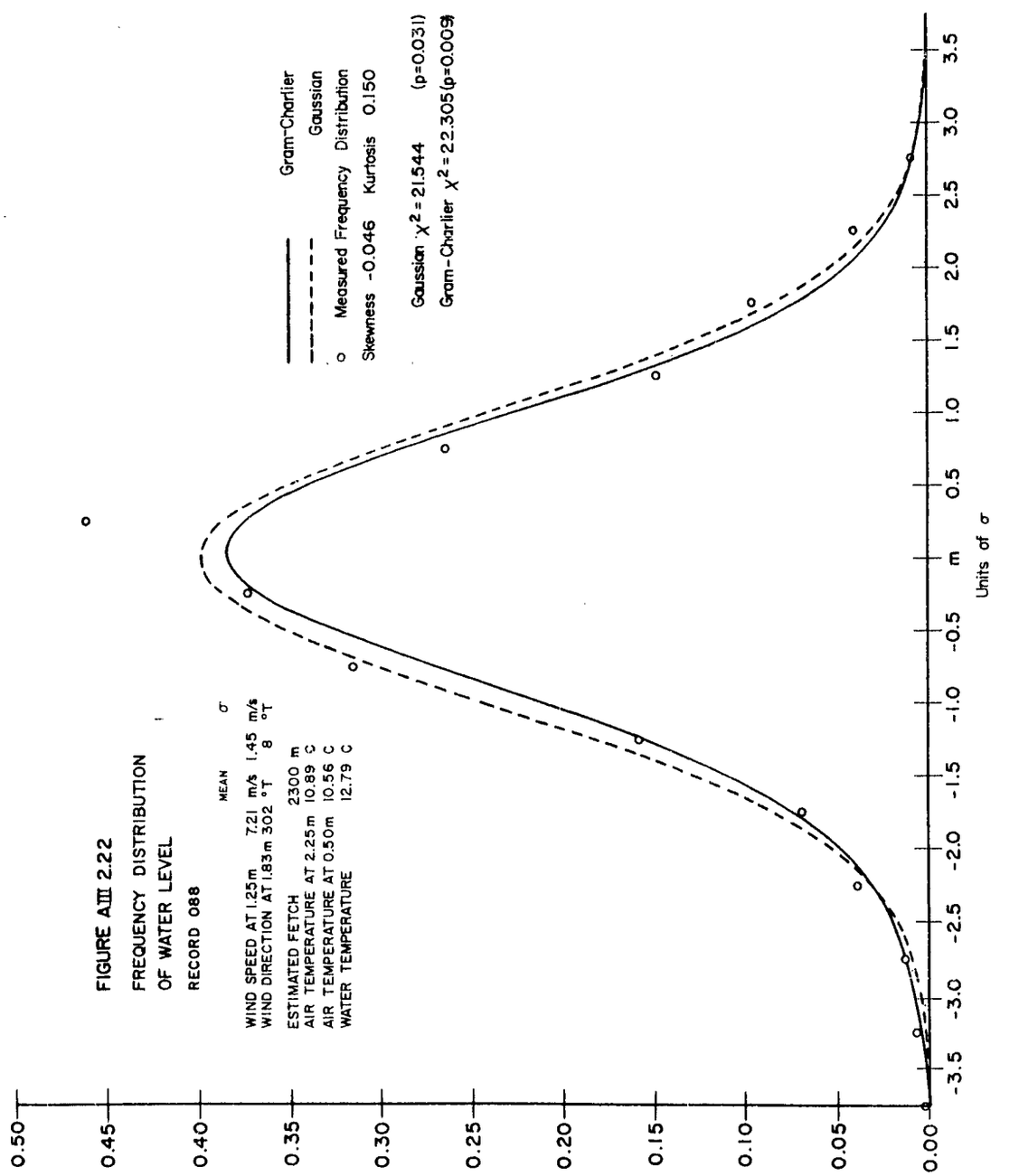


FIGURE A III 2.22
FREQUENCY DISTRIBUTION
OF WATER LEVEL
RECORD 088
MEAN σ
WIND SPEED AT 1.25m 7.21 m/s 1.45 m/s
WIND DIRECTION AT 1.83m 302 °T 8 °T
ESTIMATED FETCH 2300 m
AIR TEMPERATURE AT 2.25m 10.89 C
AIR TEMPERATURE AT 0.50m 10.56 C
WATER TEMPERATURE 12.79 C
Gram-Charlier
Gaussian
Measured Frequency Distribution
Skewness -0.046 Kurtosis 0.150
Gaussian χ^2 = 21.544 (p=0.031)
Gram-Charlier χ^2 = 22.305 (p=0.009)
0.50
0.45
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
-3.5 -3.0 -2.5 -2.0 -1.5 -1.0 -0.5 m 0.5 1.0 1.5 2.0 2.5 3.0 3.5
Units of σ

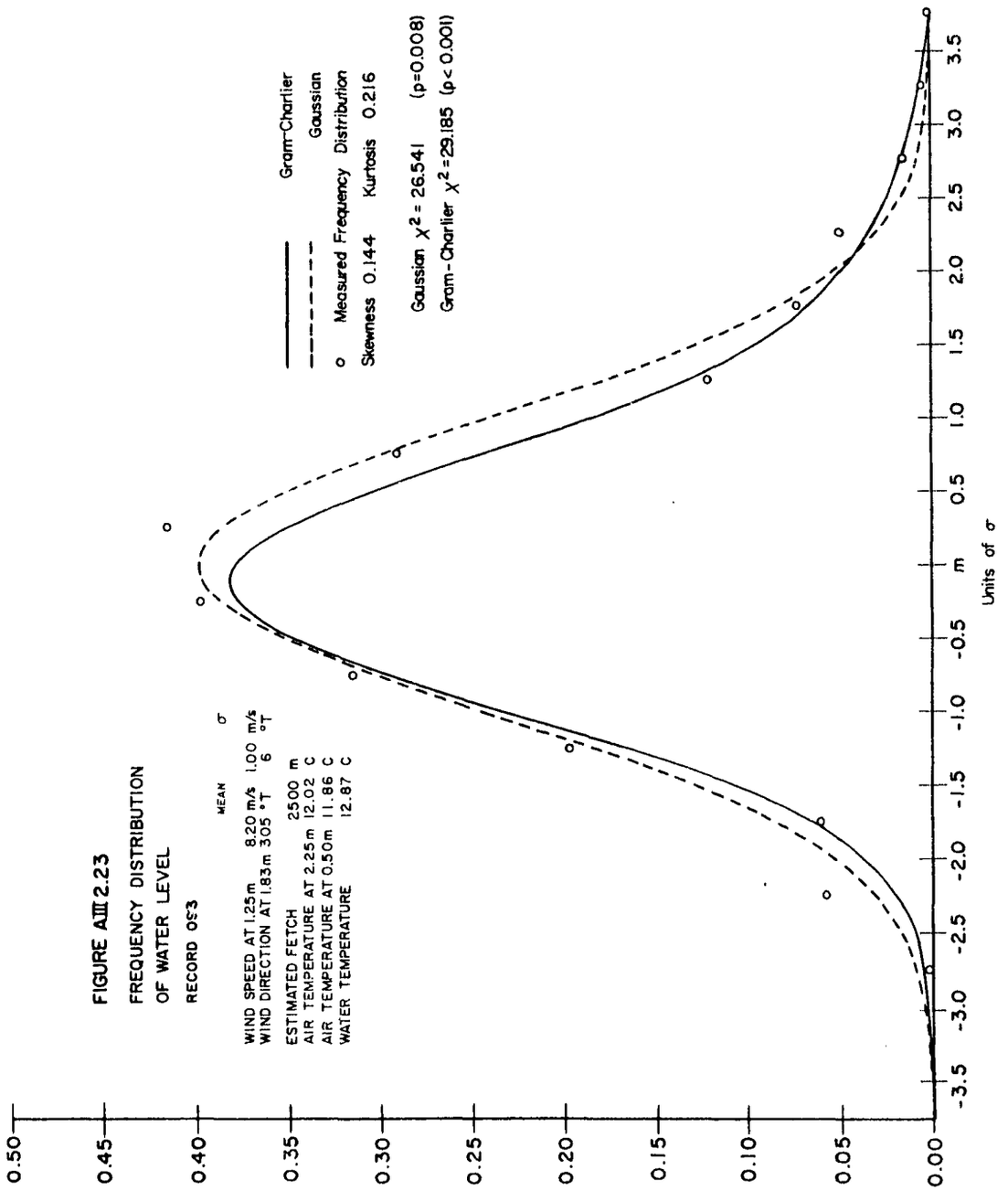


FIGURE AIII 2.23
FREQUENCY DISTRIBUTION
OF WATER LEVEL
RECORD 053
MEAN σ
WIND SPEED AT 1.25m 8.20 m/s 1.00 m/s
WIND DIRECTION AT 1.83m 305 °T 6 °T
ESTIMATED FETCH 2500 m
AIR TEMPERATURE AT 2.25m 12.02 C
AIR TEMPERATURE AT 0.50m 11.86 C
WATER TEMPERATURE 12.87 C
Gram-Charlier
Gaussian
o Measured Frequency Distribution
Skewness 0.144 Kurtosis 0.216
Gaussian χ^2 = 26.541 (p=0.008)
Gram-Charlier χ^2 = 29.185 (p< 0.001)
0.50
0.45
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
-3.5 -3.0 -2.5 -2.0 -1.5 -1.0 -0.5 m 0.5 1.0 1.5 2.0 2.5 3.0 3.5
Units of σ

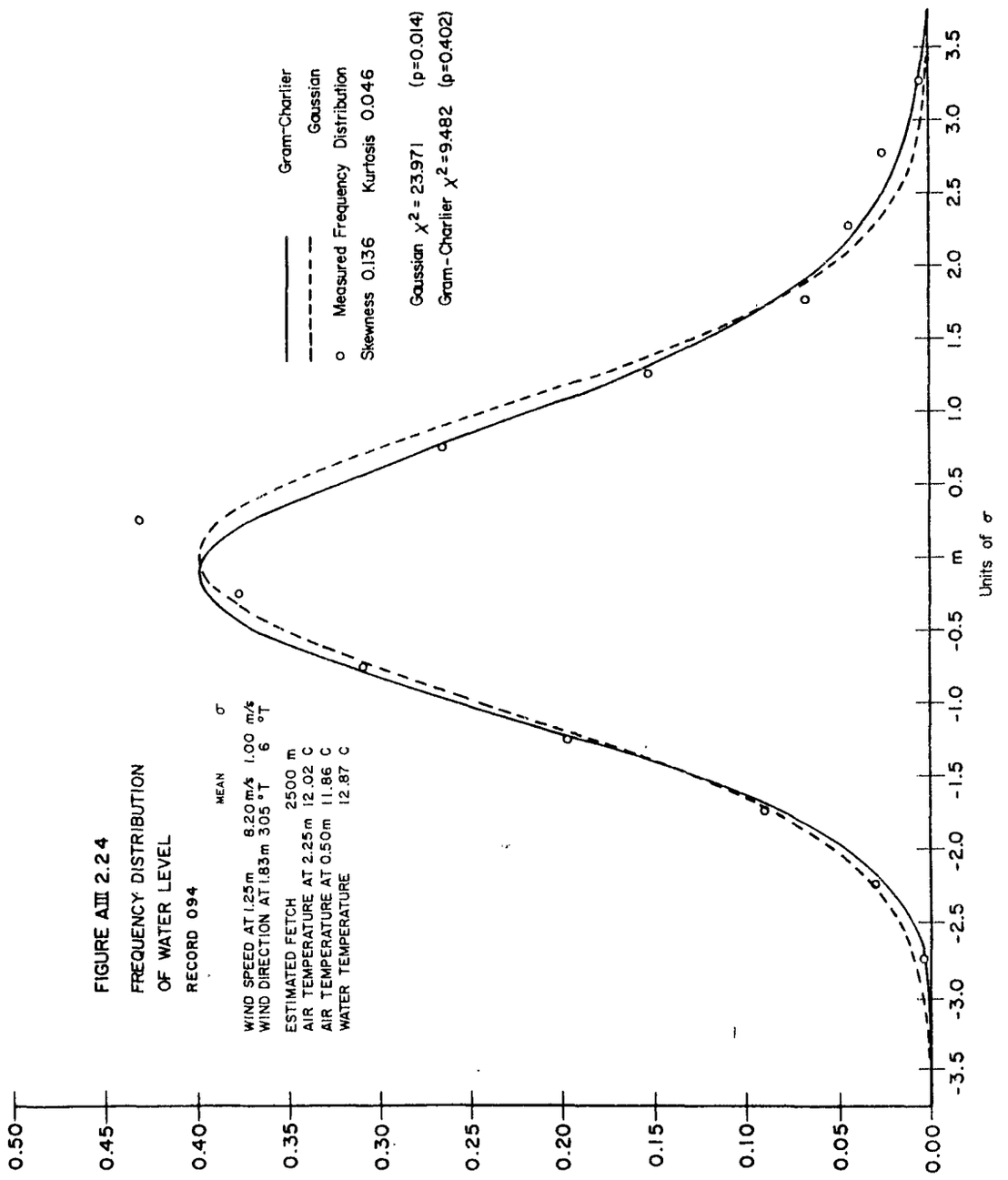


FIGURE AIII 2.2.4
FREQUENCY DISTRIBUTION
OF WATER LEVEL
RECORD 094
MEAN σ
WIND SPEED AT 1.25m 8.20 m/s 1.00 m/s
WIND DIRECTION AT 1.83m 305 °T 6 °T
ESTIMATED FETCH 2500 m
AIR TEMPERATURE AT 2.25m 12.02 C
AIR TEMPERATURE AT 0.50m 11.86 C
WATER TEMPERATURE 12.87 C
Gram-Charlier
Gaussian
Measured Frequency Distribution
Skewness 0.136 Kurtosis 0.046
Gaussian χ^2 = 23.971 (p=0.014)
Gram-Charlier χ^2 = 9.482 (p=0.402)
0.50
0.45
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
-3.5 -3.0 -2.5 -2.0 -1.5 -1.0 -0.5 m 0.5 1.0 1.5 2.0 2.5 3.0 3.5
Units of σ

TABLE A III 2.01

GRAM-CHARLIER SKEWNESS AND KURTOSIS CORRECTIONS TO THE GAUSSIAN

RECORD 009

N = 1549 ΔT = 0.1 sec Mean = 8.91 cm σ = 2.91 cm

Skewness = 0.172 Kurtosis = 0.046

Wind Speed at 1.04 m mean 4.92 m/s σ 0.58 m/s
Wind Direction at 1.34 m mean 286 °T σ 8 °T

Estimated Fetch 2100 m
Air Temperature 27.45 C Water Temperature 26.18 C

t (σ)	Correction For -t (%)	Correction For +t (%)	t (σ)	Correction For -t (%)	Correction For +t (%)
0.0	-1.15	-1.15			
0.1	0.54	-2.88	2.1	-20.82	13.14
0.2	2.15	-4.63	2.2	-26.51	19.91
0.3	3.66	-6.36	2.3	-32.79	27.61
0.4	5.00	-8.02	2.4	-39.66	36.30
0.5	6.18	-9.58	2.5	-47.13	46.03
0.6	7.15	-11.01	2.6	-55.23	56.87
0.7	7.88	-12.26	2.7	-63.95	68.87
0.8	8.35	-13.29	2.8	-73.32	82.08
0.9	8.54	-14.06	2.9	-83.33	96.57
1.0	8.40	-14.54	3.0	-94.00	112.40
1.1	7.92	-14.66	3.1	-105.33	129.63
1.2	7.06	-14.40	3.2	-117.34	148.32
1.3	5.82	-13.70	3.3	-130.02	168.54
1.4	4.16	-12.54	3.4	-143.37	190.35
1.5	2.07	-10.83	3.5	-157.42	213.82
1.6	-0.49	-8.57	3.6	-172.14	239.00
1.7	-3.53	-5.67	3.7	-187.56	265.98
1.8	-7.06	-2.10	3.8	-203.67	294.81
1.9	-11.10	2.18	3.9	-220.47	325.54
2.0	-15.69	7.25	4.0	-237.95	358.31

TABLE A III 2.02

GRAM-CHARLIER SKEWNESS AND KURTOSIS CORRECTIONS TO THE GAUSSIAN

RECORD 010

N = 1406 ΔT = 0.1 sec Mean = 8.74 cm σ = 2.99cm

Skewness = 0.143 Kurtosis = -0.015

Wind Speed at 1.04 m : mean 4.92 m/s σ 0.58 m/s
Wind Direction at 1.34 m : mean 286 °T σ 8 °T

Estimated Fetch 2100 m
Air Temperature 27.45 C Water Temperature 26.18 C

t (σ)	Correction For -t (%)	Correction For +t (%)	t (σ)	Correction For -t (%)	Correction For +t (%)
0.0	0.38	0.38			
0.1	1.81	-1.05	2.1	-12.86	15.36
0.2	3.22	-2.42	2.2	-18.21	20.37
0.3	4.60	-3.72	2.3	-24.27	25.95
0.4	5.91	-4.93	2.4	-31.02	32.12
0.5	7.10	-6.00	2.5	-38.55	38.91
0.6	8.18	-6.92	2.6	-46.87	46.33
0.7	9.09	-7.67	2.7	-56.01	54.41
0.8	9.80	-8.20	2.8	-66.03	63.17
0.9	10.30	-8.50	2.9	-76.94	72.62
1.0	10.53	-8.53	3.0	-88.80	82.80
1.1	10.49	-8.29	3.1	-101.63	93.71
1.2	10.12	-7.72	3.2	-115.48	105.38
1.3	9.41	-6.83	3.3	-130.39	117.83
1.4	8.30	-5.58	3.4	-146.39	131.07
1.5	6.79	-3.93	3.5	-163.52	145.12
1.6	4.84	-1.88	3.6	-181.81	160.01
1.7	2.39	0.61	3.7	-201.32	175.76
1.8	-0.57	3.55	3.8	-222.08	192.36
1.9	-4.07	6.97	3.9	-244.12	209.84
2.0	-8.15	10.91	4.0	-267.49	228.25

TABLE A III 2.03

GRAM-CHARLIER SKEWNESS AND KURTOSIS CORRECTIONS TO THE GAUSSIAN

RECORD 011

N = 1509 ΔT = 0.1 sec Mean = 8.90 cm σ = 3.28 cm

Skewness = 0.096 Kurtosis = -0.125

Wind Speed at 1.22 m mean 5.09 m/s σ 0.58 m/s
Wind Direction at 1.52 m mean 288 °T σ 9 °T

Estimated Fetch 2200 m

Air Temperature 28.98 C Water Temperature 26.62 C

t (σ)	Correction For -t (%)	Correction For +t (%)	t (σ)	Correction For -t (%)	Correction For +t (%)
0.0	3.13	3.13			
0.1	4.13	2.23	2.1	0.95	19.91
0.2	5.26	1.48	2.2	-3.98	21.92
0.3	6.47	0.89	2.3	-9.81	23.89
0.4	7.74	0.46	2.4	-16.63	25.77
0.5	9.02	0.22	2.5	-24.50	27.50
0.6	10.31	0.17	2.6	-33.51	29.05
0.7	11.56	0.32	2.7	-43.74	30.40
0.8	12.74	0.66	2.8	-55.27	31.47
0.9	13.81	1.19	2.9	-68.20	32.22
1.0	14.73	1.93	3.0	-82.60	32.60
1.1	15.46	2.86	3.1	-98.58	32.56
1.2	15.96	3.98	3.2	-116.24	32.04
1.3	16.16	5.26	3.3	-135.67	30.99
1.4	16.03	6.71	3.4	-156.96	29.30
1.5	15.51	8.31	3.5	-180.23	26.97
1.6	14.55	10.05	3.6	-205.58	23.90
1.7	13.09	11.89	3.7	-233.11	20.03
1.8	11.06	13.82	3.8	-262.94	15.28
1.9	8.40	15.82	3.9	-295.18	9.58
2.0	5.06	16.86	4.0	-329.94	2.86

TABLE A III 2.04

GRAM-CHARLIER SKEWNESS AND KURTOSIS CORRECTIONS TO THE GAUSSIAN

RECORD 012

N = 1337 ΔT = 0.1 sec Mean = 8.73 cm σ = 2.91 cm

Skewness = 0.182 Kurtosis = 0.101

Wind Speed at 1.22 m : mean 5.09 m/s σ 0.58 m/s
Wind Direction at 1.52 m : mean 288 °T σ 9 °T

Estimated Fetch 2200 m

Air Temperature 28.98 C Water Temperature 26.62 C

t (σ)	Correction For -t (%)	Correction For +t (%)	t (σ)	Correction For -t (%)	Correction For +t (%)
0.0	-2.53	-2.53			
0.1	-0.76	-4.38	2.1	-26.39	9.53
0.2	0.86	-6.32	2.2	-31.81	17.31
0.3	2.33	-8.27	2.3	-37.64	26.26
0.4	3.58	-10.20	2.4	-43.88	36.50
0.5	4.61	-12.07	2.5	-50.50	48.08
0.6	5.38	-13.84	2.6	-57.51	61.11
0.7	5.86	-15.46	2.7	-64.88	75.66
0.8	6.04	-16.86	2.8	-72.59	91.83
0.9	5.90	-18.02	2.9	-80.65	109.71
1.0	5.40	-18.86	3.0	-89.20	129.40
1.1	4.54	-19.34	3.1	-97.64	150.98
1.2	3.31	-19.41	3.2	-106.53	174.57
1.3	1.67	-18.99	3.3	-115.66	200.26
1.4	-0.36	-18.02	3.4	-125.99	228.13
1.5	-2.79	-16.45	3.5	-134.49	258.33
1.6	-5.67	-14.21	3.6	-144.14	290.92
1.7	-8.96	-11.22	3.7	-153.87	326.03
1.8	-12.67	-7.43	3.8	-163.12	364.34
1.9	-16.82	-2.76	3.9	-173.51	404.27
2.0	-21.39	2.87	4.0	-183.33	447.61

TABLE A III 2.05

GRAM-CHARLIER SKEWNESS AND KURTOSIS CORRECTIONS TO THE GAUSSIAN

RECORD 017

N = 1473 ΔT = 0.1 sec Mean = 11.12 cm σ = 1.82 cm

Skewness = 0.175 Kurtosis = 0.050

Wind Speed at 1.22 m : mean 3.88 m/s σ 0.45 m/s
Wind Direction at 1.52 m : mean 277 °T σ 10 °T

Estimated Fetch 1700 m
Air Temperature 29.51 C Water Temperature 27.55 C

t (σ)	Correction For -t (%)	Correction For +t (%)	t (σ)	Correction For -t (%)	Correction For +t (%)
0.0	-1.25	-1.25			
0.1	0.47	-3.01	2.1	-21.44	13.10
0.2	2.10	-4.80	2.2	-27.20	20.02
0.3	3.62	-6.56	2.3	-33.54	27.90
0.4	4.99	-8.27	2.4	-40.47	36.81
0.5	6.17	-9.87	2.5	-48.00	46.80
0.6	7.14	-11.34	2.6	-56.14	57.92
0.7	7.87	-12.63	2.7	-64.90	70.24
0.8	8.33	-13.69	2.8	-74.29	83.81
0.9	8.50	-14.50	2.9	-84.32	98.72
1.0	8.34	-15.00	3.0	-95.00	115.00
1.1	7.82	-15.16	3.1	-106.32	132.74
1.2	6.93	-14.91	3.2	-118.31	151.99
1.3	5.64	-14.22	3.3	-130.94	172.82
1.4	3.94	-13.04	3.4	-144.24	195.30
1.5	1.80	-11.32	3.5	-158.20	219.50
1.6	-0.81	-9.03	3.6	-172.83	245.49
1.7	-3.91	-6.09	3.7	-188.11	273.35
1.8	-7.50	-2.46	3.8	-204.06	303.12
1.9	-11.61	1.91	3.9	-220.66	334.90
2.0	-16.25	7.09	4.0	-247.91	378.75

TABLE A III 2.06

GRAM-CHARLIER SKEWNESS AND KURTOSIS CORRECTIONS TO THE GAUSSIAN

RECORD 018

N = 1411 ΔT = 0.1 sec Mean = 11.21 cm σ = 2.03cm

Skewness = 0.219 Kurtosis = 0.183

Wind Speed at 1.22 m mean 3.88m/s σ 0.45 m/s
Wind Direction at 1.52 m mean 277 °T σ 10 °T

Estimated Fetch 1700 m

Air Temperature 29.51 C Water Temperature 27.55 C

t (σ)	Correction For -t (%)	Correction For +t (%)	t (σ)	Correction For -t (%)	Correction For +t (%)
0.0	-4.58	-4.58			
0.1	-2.48	-6.84	2.1	-36.89	6.35
0.2	-0.62	-9.26	2.2	-42.69	16.41
0.3	0.98	-11.76	2.3	-48.75	28.15
0.4	2.29	-14.29	2.4	-55.04	41.68
0.5	3.27	-16.81	2.5	-61.50	57.12
0.6	4.09	-19.23	2.6	-68.11	74.63
0.7	4.14	-21.52	2.7	-74.79	94.33
0.8	3.98	-23.58	2.8	-81.51	116.35
0.9	3.40	-25.38	2.9	-88.20	140.86
1.0	2.40	-26.80	3.0	-94.80	168.00
1.1	0.96	-27.78	3.1	-101.25	197.91
1.2	-0.92	-28.26	3.2	-107.49	230.77
1.3	-3.25	-28.11	3.3	-113.44	266.70
1.4	-6.02	-27.28	3.4	-120.67	304.25
1.5	-9.21	-25.63	3.5	-124.16	348.52
1.6	-12.87	-23.15	3.6	-128.77	394.73
1.7	-16.92	-19.64	3.7	-132.77	444.71
1.8	-21.36	-15.06	3.8	-136.07	498.63
1.9	-26.19	-9.27	3.9	-138.55	556.67
2.0	-31.38	-2.18	4.0	-140.18	619.02

TABLE A III 2.07

GRAM-CHARLIER SKEWNESS AND KURTOSIS CORRECTIONS TO THE GAUSSIAN

RECORD 027

N = 1527 ΔT = 0.1 sec Mean = 10.11 cm σ = 1.97 cm

Skewness = 0.158 Kurtosis = -0.196

Wind Speed at 1.35 m : mean 4.64m/s σ 0.56 m/s
Wind Direction at 1.65 m : mean 314 °T σ 7 °T

Estimated Fetch 2300 m
Air Temperature 24.64 C Water Temperature 26.38 C

t (σ)	Correction For -t (%)	Correction For +t (%)	t (σ)	Correction For -t (%)	Correction For +t (%)
0.0	4.90	4.90			
0.1	6.57	3.41	2.1	0.76	31.94
0.2	8.41	2.17	2.2	-7.25	35.39
0.3	10.37	1.17	2.3	-16.71	38.77
0.4	12.41	0.45	2.4	-27.73	42.05
0.5	14.49	0.01	2.5	-40.44	45.14
0.6	16.56	-0.12	2.6	-54.98	48.00
0.7	18.56	0.06	2.7	-71.46	50.54
0.8	20.44	0.56	2.8	-90.03	52.71
0.9	22.15	1.39	2.9	-110.83	54.43
1.0	23.60	2.54	3.0	-134.00	55.60
1.1	24.74	4.00	3.1	-159.68	56.16
1.2	25.49	5.77	3.2	-188.03	56.01
1.3	25.77	7.83	3.3	-219.21	55.05
1.4	25.50	10.16	3.4	-253.36	53.20
1.5	24.59	12.73	3.5	-290.66	50.36
1.6	22.99	15.57	3.6	-331.27	46.41
1.7	20.56	18.60	3.7	-375.36	41.26
1.8	17.23	21.79	3.8	-423.11	34.79
1.9	12.89	25.09	3.9	-474.69	26.89
2.0	7.44	28.50	4.0	-530.30	17.44

TABLE A III 2.08

GRAM-CHARLIER SKEWNESS AND KURTOSIS CORRECTIONS TO THE GAUSSIAN

RECORD 028

N = 1574 ΔT = 0.1 sec Mean = 9.89 cm σ = 1.77 cm

Skewness = 0.178 Kurtosis = 0.059

Wind Speed at 1.35 m mean 4.64 m/s σ 0.56 m/s
Wind Direction at 1.65 m mean 314 °T σ 7 °T

Estimated Fetch 2300 m

Air Temperature 24.64 C Water Temperature 26.38 C

t (σ)	Correction For -t (%)	Correction For +t (%)	t (σ)	Correction For -t (%)	Correction For +t (%)
0.0	-1.48	-1.48			
0.1	0.27	-3.27	2.1	-22.49	12.65
0.2	1.92	-5.10	2.2	-28.26	19.78
0.3	3.44	-6.92	2.3	-34.57	27.93
0.4	4.81	-8.67	2.4	-41.45	37.15
0.5	5.98	-10.34	2.5	-48.92	47.50
0.6	6.93	-11.87	2.6	-56.95	59.05
0.7	7.63	-13.23	2.7	-65.58	71.88
0.8	8.04	-14.36	2.8	-74.79	86.03
0.9	8.15	-15.23	2.9	-84.60	101.58
1.0	7.94	-15.80	3.0	-95.00	118.60
1.1	7.36	-16.00	3.1	-106.00	137.16
1.2	6.41	-15.81	3.2	-117.59	157.33
1.3	5.05	-15.17	3.3	-129.78	179.20
1.4	3.27	-14.01	3.4	-142.55	202.81
1.5	1.06	-12.30	3.5	-155.92	228.26
1.6	-1.63	-9.99	3.6	-169.88	255.62
1.7	-4.78	-7.00	3.7	-184.39	284.97
1.8	-8.43	-3.31	3.8	-199.48	316.38
1.9	-12.60	1.16	3.9	-215.14	349.94
2.0	17.28	6.46	4.0	-231.34	385.72

TABLE A III 2.09

GRAM-CHARLIER SKEWNESS AND KURTOSIS CORRECTIONS TO THE GAUSSIAN

RECORD 067

N = 750 ΔT = 0.2 sec Mean = 7.75 cm σ = 2.23 cm

Skewness = 0.082 Kurtosis = -0.007

Wind Speed at 1.25m mean 6.18 m/s σ 1.09 m/s

Wind Direction at 1.83m mean 307 °T σ 7 °T

Estimated Fetch 2700 m

Air Temperature at 2.25m 9.25 C

Air Temperature at 0.50m 9.88 C

Water Temperature 12.46 C

t (σ)	Correction For -t (%)	Correction For +t (%)	t (σ)	Correction For -t (%)	Correction For +t (%)
0.0	-0.18	-0.18			
0.1	0.64	-1.00	2.1	-7.51	8.67
0.2	1.43	-1.81	2.2	-10.56	11.56
0.3	2.18	-2.60	2.3	-14.01	14.79
0.4	2.88	-3.34	2.4	-17.85	18.37
0.5	3.50	-4.02	2.5	-22.13	22.29
0.6	4.04	-4.62	2.6	-26.84	26.60
0.7	4.47	-5.13	2.7	-32.03	31.29
0.8	4.78	-5.54	2.8	-37.71	36.37
0.9	4.97	-5.81	2.9	-43.89	41.87
1.0	5.00	-5.94	3.0	-50.60	47.80
1.1	4.87	-5.89	3.1	-57.86	54.16
1.2	4.56	-5.68	3.2	-65.69	60.97
1.3	4.06	-5.26	3.3	-74.10	68.24
1.4	3.34	-4.62	3.4	-83.12	75.98
1.5	2.41	-3.75	3.5	-92.78	84.20
1.6	1.23	-2.61	3.6	-103.10	92.92
1.7	-0.19	-1.21	3.7	-114.08	102.14
1.8	-1.88	0.48	3.8	-125.75	111.89
1.9	-3.85	2.49	3.9	-138.16	122.16
2.0	-6.11	4.83	4.0	-151.29	142.97

TABLE A III 2.10

GRAM-CHARLIER SKEWNESS AND KURTOSIS CORRECTIONS TO THE GAUSSIAN

RECORD 068

N = 850 ΔT = 0.2 sec Mean = 7.30 cm σ = 2.36 cm

Skewness = 0.087 Kurtosis = 0.025

Wind Speed at 1.25m mean 6.18 m/s σ 1.09 m/s

Wind Direction at 1.83m mean 307 °T σ 7 °T

Estimated Fetch 2700 m

Air Temperature at 2.25m 9.25 C

Air Temperature at 0.50m 9.88 C

Water Temperature 12.46 C

t (σ)	Correction For −t (%)	Correction For +t (%)	t (σ)	Correction For −t (%)	Correction For +t (%)
0.0	-0.63	-0.63			
0.1	0.23	-1.51	2.1	-10.68	6.50
0.2	1.05	-2.39	2.2	-13.53	9.95
0.3	1.79	-3.27	2.3	-16.68	13.86
0.4	2.47	-4.11	2.4	-20.12	18.30
0.5	3.07	-4.91	2.5	-23.86	23.26
0.6	3.54	-5.64	2.6	-27.90	28.80
0.7	3.91	-6.29	2.7	-32.26	34.92
0.8	4.13	-6.81	2.8	-36.92	41.68
0.9	4.22	-7.22	2.9	-41.90	49.10
1.0	4.13	-7.47	3.0	-47.20	57.20
1.1	3.88	-7.54	3.1	-52.82	66.02
1.2	3.44	-7.42	3.2	-58.77	75.61
1.3	2.80	-7.08	3.3	-65.04	85.98
1.4	1.95	-6.49	3.4	-71.63	97.17
1.5	0.88	-5.64	3.5	-78.56	109.22
1.6	-0.42	-4.50	3.6	-85.81	122.15
1.7	-1.96	-3.04	3.7	-93.39	136.01
1.8	-3.74	-1.24	3.8	-101.30	150.84
1.9	-5.78	0.94	3.9	-109.54	166.66
2.0	-8.09	3.51	4.0	-118.09	183.51

TABLE A III 2.11

GRAM-CHARLIER SKEWNESS AND KURTOSIS CORRECTIONS TO THE GAUSSIAN

RECORD 069

N = 750 ΔT = 0.2 sec Mean = 11.32 cm σ = 2.78 cm

Skewness = 0.069 Kurtosis = 0.207

Wind Speed at 1.25m mean 5.61 m/s σ 0.98 m/s

Wind Direction at 1.83m mean 312 °T σ 9 °T

Estimated Fetch 3000 m

Air Temperature at 2.25m 9.78 C

Air Temperature at 0.50m 9.52 C

Water Temperature 12.45 C

t (σ)	Correction For -t (%)	Correction For +t (%)	t (σ)	Correction For -t (%)	Correction For +t (%)
0.0	-5.18	-5.18			
0.1	-4.58	-5.96	2.1	-24.08	-10.46
0.2	-4.23	-6.95	2.2	-24.17	-5.55
0.3	-4.08	-8.10	2.3	-23.76	0.46
0.4	-4.18	-9.40	2.4	-22.80	7.68
0.5	-4.49	-10.81	2.5	-21.17	16.21
0.6	-5.04	-12.32	2.6	-18.80	26.18
0.7	-5.79	-13.87	2.7	-15.59	37.69
0.8	-6.75	-15.43	2.8	-11.46	50.88
0.9	-7.90	-16.96	2.9	-6.29	65.87
1.0	-9.20	-18.40	3.0	0.00	82.80
1.1	-10.64	-19.70	3.1	7.54	101.80
1.2	-12.19	-20.81	3.2	16.43	113.01
1.3	-13.82	-21.76	3.3	26.80	146.58
1.4	-15.48	-22.18	3.4	38.76	172.64
1.5	-17.14	-22.32	3.5	52.44	201.36
1.6	-18.75	-21.99	3.6	67.95	232.89
1.7	-20.25	-21.11	3.7	85.46	267.40
1.8	-21.59	-19.61	3.8	105.07	304.05
1.9	-22.73	-17.39	3.9	126.95	345.99
2.0	-23.58	-14.38	4.0	151.22	390.42

TABLE A III 2.12

GRAM-CHARLIER SKEWNESS AND KURTOSIS CORRECTIONS TO THE GAUSSIAN

RECORD 070

N = 880 ΔT = 0.2 sec Mean = 11.78 cm σ = 2.69 cm

Skewness = 0.027 Kurtosis = 0.045

Wind Speed at 1.25m mean 5.61 m/s σ 0.98 m/s

Wind Direction at 1.83m mean 312 °T σ 9 °T

Estimated Fetch 3000 m

Air Temperature at 2.25m 9.78 C

Air Temperature at 0.50m 9.52 C

Water Temperature 12.45 C

t (σ)	Correction For −t (%)	Correction For +t (%)	t (σ)	Correction For −t (%)	Correction For +t (%)
0.0	-1.13	-1.13			
0.1	-0.84	-1.42	2.1	-6.41	-1.09
0.2	-0.68	-1.74	2.2	-6.87	0.41
0.3	-0.53	-2.11	2.3	-7.27	2.21
0.4	-0.46	-2.50	2.4	-7.60	4.32
0.5	-0.42	-2.90	2.5	-7.85	6.77
0.6	-0.46	-3.32	2.6	-8.00	9.60
0.7	-0.56	-3.72	2.7	-8.02	12.82
0.8	-0.71	-4.11	2.8	-7.92	16.48
0.9	-0.93	-4.47	2.9	-7.64	20.60
1.0	-1.20	-4.80	3.0	-7.20	25.20
1.1	-1.53	-5.07	3.1	-6.56	30.32
1.2	-1.91	-5.27	3.2	-5.69	36.01
1.3	-2.33	-5.39	3.3	-4.59	42.27
1.4	-2.78	-5.40	3.4	-3.21	49.17
1.5	-3.28	-5.30	3.5	-1.55	56.73
1.6	-3.80	-5.06	3.6	0.43	64.97
1.7	-4.33	-4.67	3.7	2.75	73.95
1.8	-4.87	-4.09	3.8	5.46	83.70
1.9	-5.40	-3.32	3.9	8.55	94.27
2.0	-5.93	-2.33	4.0	12.07	105.67

TABLE A III 2.13

GRAM-CHARLIER SKEWNESS AND KURTOSIS CORRECTIONS TO THE GAUSSIAN

RECORD 075

N = 750 ΔT = 0.2 sec Mean = 9.37 cm σ = 3.11 cm

Skewness = 0.101 Kurtosis = 0.043

Wind Speed at 1.25m mean 6.75 m/s σ 1.09 m/s

Wind Direction at 1.83m mean 325 °T σ 8 °T

Estimated Fetch 3000 m

Air Temperature at 2.25m 9.92 C

Air Temperature at 0.50m 9.86 C

Water Temperature 12.52 C

t (σ)	Correction For -t (%)	Correction For +t (%)	t (σ)	Correction For -t (%)	Correction For +t (%)
0.0	-1.08	-1.08			
0.1	-0.09	-2.11	2.1	-13.56	6.38
0.2	0.83	-3.15	2.2	-16.72	10.54
0.3	1.67	-4.21	2.3	-20.15	15.31
0.4	2.41	-5.23	2.4	-23.87	20.73
0.5	3.04	-6.22	2.5	-28.09	25.97
0.6	3.53	-7.13	2.6	-32.14	33.68
0.7	3.88	-7.96	2.7	-36.71	41.29
0.8	4.06	-8.66	2.8	-41.53	49.71
0.9	4.06	-9.22	2.9	-46.63	59.01
1.0	3.86	-9.60	3.0	-52.00	69.20
1.1	3.48	-9.78	3.1	-57.63	80.35
1.2	2.87	-9.73	3.2	-63.52	92.48
1.3	2.04	-9.42	3.3	-69.65	101.67
1.4	0.99	-8.81	3.4	-76.02	119.94
1.5	-0.31	-7.89	3.5	-82.64	135.36
1.6	-1.86	-6.60	3.6	-89.47	151.97
1.7	-3.67	-4.93	3.7	-96.51	169.81
1.8	5.73	-2.83	3.8	-103.76	188.96
1.9	8.07	-0.27	3.9	-111.20	209.44
2.0	10.67	2.79	4.0	-118.81	231.33

TABLE A III 2.14

GRAM-CHARLIER SKEWNESS AND KURTOSIS CORRECTIONS TO THE GAUSSIAN

RECORD 076

N = 850 ΔT = 0.2 sec Mean = 9.82 cm σ = 2.72 cm

Skewness = 0.092 Kurtosis = -0.031

Wind Speed at 1.25m: mean 6.75 m/s σ 1.09 m/s

Wind Direction at 1.83m: mean 325 °T σ 8 °T

Estimated Fetch 3000 m

Air Temperature at 2.25m 9.92 C

Air Temperature at 0.50m 9.86 C

Water Temperature 12.52 C

t (σ)	Correction For -t (%)	Correction For +t (%)	t (σ)	Correction For -t (%)	Correction For +t (%)
0.0	0.78	0.78			
0.1	1.70	-0.12	2.1	-6.49	11.67
0.2	2.64	-0.98	2.2	-10.08	14.64
0.3	3.59	-1.77	2.3	-14.40	17.90
0.4	4.50	-2.46	2.4	-19.18	21.44
0.5	6.37	-3.07	2.5	-24.55	25.29
0.6	6.16	-3.56	2.6	-30.53	29.43
0.7	6.86	-3.92	2.7	-37.27	33.87
0.8	7.45	-4.13	2.8	-44.51	38.61
0.9	7.90	-4.18	2.9	-52.57	43.65
1.0	8.20	-4.06	3.0	-61.40	49.00
1.1	8.31	-3.77	3.1	-71.03	54.65
1.2	8.21	-3.27	3.2	-81.49	60.61
1.3	7.88	-2.56	3.3	-91.83	66.87
1.4	7.28	-1.64	3.4	-105.08	73.42
1.5	6.40	-0.50	3.5	-118.28	80.28
1.6	5.21	0.89	3.6	-132.49	87.43
1.7	3.67	2.53	3.7	-147.72	94.88
1.8	1.77	4.41	3.8	-164.01	102.60
1.9	-0.55	6.55	3.9	-181.44	110.62
2.0	-3.29	8.97	4.0	-200.03	118.91

TABLE A III 2.15

GRAM-CHARLIER SKEWNESS AND KURTOSIS CORRECTIONS TO THE GAUSSIAN

RECORD 081

N = 750 ΔT = 0.2 sec Mean = 11.75 cm σ = 1.86 cm

Skewness = 0.029 Kurtosis = - 0.065

Wind Speed at 1.25m' mean 6.78 m/s σ 1.17 m/s

Wind Direction at 1.83m' mean 326 °T σ 8 °T

Estimated Fetch 3000 m

Air Temperature at 2.25m 10.42 C

Air Temperature at 0.50m 10.46 C

Water Temperature 12.69 C

t (σ)	Correction For -t (%)	Correction For +t (%)	t (σ)	Correction For -t (%)	Correction For +t (%)
0.0	1.63	1.63			
0.1	1.95	1.37	2.1	2.56	8.28
0.2	2.32	1.18	2.2	0.76	8.68
0.3	2.75	1.07	2.3	-1.43	8.75
0.4	3.23	1.03	2.4	-4.03	8.77
0.5	3.73	1.07	2.5	-7.07	8.63
0.6	4.25	1.19	2.6	-10.61	8.29
0.7	4.79	1.39	2.7	-14.67	7.73
0.8	5.30	1.66	2.8	-19.29	6.91
0.9	5.80	1.99	2.9	-24.52	5.82
1.0	6.26	2.40	3.0	-30.40	4.40
1.1	6.66	2.86	3.1	-36.98	2.64
1.2	6.99	3.37	3.2	-44.29	0.51
1.3	7.22	3.92	3.3	-52.39	-2.05
1.4	7.32	4.50	3.4	-61.32	-5.06
1.5	7.29	5.11	3.5	-71.15	-8.55
1.6	7.08	5.72	3.6	-81.89	-12.57
1.7	6.67	6.31	3.7	-93.63	-17.17
1.8	6.05	6.89	3.8	-106.41	-22.37
1.9	5.18	7.42	3.9	-120.28	-28.22
2.0	4.03	7.89	4.0	-135.29	-34.77

TABLE A III 2.16

GRAM-CHARLIER SKEWNESS AND KURTOSIS CORRECTIONS TO THE GAUSSIAN

RECORD 082

N = 888 ΔT = 0.2 sec Mean = 11.90 cm σ = 1.91 cm

Skewness = 0.034 Kurtosis = -0.116

Wind Speed at 1.25m: mean 6.78 m/s σ 1.17 m/s

Wind Direction at 1.83m: mean 326 °T σ 8 °T

Estimated Fetch 3000 m

Air Temperature at 2.25m 10.42 C

Air Temperature at 0.50m 10.46 C

Water Temperature 12.69 C

t (σ)	Correction For -t (%)	Correction For +t (%)	t (σ)	Correction For -t (%)	Correction For +t (%)
0.0	2.90	2.90			
0.1	3.29	2.61	2.1	6.32	13.04
0.2	3.80	2.46	2.2	3.74	12.92
0.3	4.40	2.42	2.3	0.56	12.50
0.4	5.09	2.51	2.4	-3.27	11.75
0.5	5.85	2.73	2.5	-8.82	10.60
0.6	6.66	3.06	2.6	-13.15	9.01
0.7	7.50	3.52	2.7	-19.32	6.94
0.8	8.36	4.08	2.8	-26.40	4.32
0.9	9.19	4.73	2.9	-34.47	1.09
1.0	10.00	5.46	3.0	-43.60	-2.80
1.1	10.73	6.27	3.1	-53.86	-7.42
1.2	11.37	7.13	3.2	-65.33	-12.81
1.3	11.87	8.01	3.3	-78.09	-19.07
1.4	12.20	8.90	3.4	-92.21	-26.25
1.5	12.34	9.78	3.5	-107.80	-34.42
1.6	12.21	10.61	3.6	-124.93	-43.65
1.7	11.80	11.38	3.7	-143.70	-54.04
1.8	11.05	12.03	3.8	-164.18	-65.64
1.9	9.93	12.55	3.9	-186.48	-78.54
2.0	8.36	12.90	4.0	-210.70	-92.84

TABLE A III 2.17

GRAM-CHARLIER SKEWNESS AND KURTOSIS CORRECTIONS TO THE GAUSSIAN

RECORD 083

N = 750 ΔT = 0.2 sec Mean = 11.75 cm σ = 2.75 cm

Skewness = -0.002 Kurtosis = -0.101

Wind Speed at 1.25m mean 7.77 m/s σ 1.16 m/s

Wind Direction at 1.83m mean 314 °T σ 12 °T

Estimated Fetch 2700 m

Air Temperature at 2.25m 10.76 C

Air Temperature at 0.50m 10.61 C

Water Temperature 12.72 C

t (σ)	Correction For -t (%)	Correction For +t (%)	t (σ)	Correction For -t (%)	Correction For +t (%)
0.0	2.53	2.53			
0.1	2.55	2.59	2.1	8.63	8.23
0.2	2.69	2.77	2.2	7.52	6.98
0.3	2.91	3.03	2.3	6.04	5.34
0.4	3.23	3.39	2.4	4.13	3.25
0.5	3.64	3.82	2.5	1.75	0.67
0.6	4.12	4.34	2.6	-1.15	-2.45
0.7	4.68	4.92	2.7	-4.62	-6.16
0.8	5.28	5.54	2.8	-8.72	-10.52
0.9	5.93	6.19	2.9	-13.48	-15.58
1.0	6.60	6.86	3.0	-19.00	-21.40
1.1	7.27	7.53	3.1	-25.30	-28.04
1.2	7.93	8.17	3.2	-32.48	-35.56
1.3	8.55	8.77	3.3	-40.56	-44.04
1.4	9.09	9.29	3.4	-49.63	-53.51
1.5	9.55	9.71	3.5	-59.76	-64.08
1.6	9.89	9.99	3.6	-71.00	-75.78
1.7	10.08	10.10	3.7	-83.44	-88.72
1.8	10.08	10.02	3.8	-97.15	-102.95
1.9	9.87	9.71	3.9	-112.21	-118.55
2.0	9.39	9.13	4.0	-128.67	-135.61

TABLE A III 2.18

GRAM-CHARLIER SKEWNESS AND KURTOSIS CORRECTIONS TO THE GAUSSIAN

RECORD 084

N = 566 ΔT = 0.2 sec Mean = 12.18 cm σ = 2.58 cm

Skewness = 0.044 Kurtosis = 0.024

Wind Speed at 1.25m' mean 7.77 m/s σ 1.16 m/s

Wind Direction at 1.83m' mean 314 °T σ 12 °T

Estimated Fetch 2700 m

Air Temperature at 2.25m 10.76 C

Air Temperature at 0.50m 10.61 C

Water Temperature 12.72 C

t (σ)	Correction For −t (%)	Correction For +t (%)	t (σ)	Correction For −t (%)	Correction For +t (%)
0.0	-0.60	-0.60			
0.1	-0.17	-1.05	2.1	-6.34	2.34
0.2	0.22	-1.52	2.2	-7.66	4.22
0.3	0.57	-1.99	2.3	-8.08	6.38
0.4	0.88	-2.46	2.4	-10.60	8.84
0.5	1.13	-2.91	2.5	-12.11	11.63
0.6	1.31	-3.33	2.6	-13.89	14.77
0.7	1.44	-3.72	2.7	-15.71	18.27
0.8	1.48	-4.06	2.8	-17.59	22.17
0.9	1.45	-4.33	2.9	-19.56	26.46
1.0	1.33	-4.53	3.0	-21.60	31.20
1.1	1.13	-4.65	3.1	-23.71	36.39
1.2	0.84	-4.66	3.2	-25.90	42.06
1.3	0.44	-4.56	3.3	-28.14	48.24
1.4	-0.04	-4.32	3.4	-30.44	54.94
1.5	-0.64	-3.94	3.5	-32.77	62.19
1.6	-1.33	-3.39	3.6	-35.15	70.03
1.7	-2.13	-2.67	3.7	-37.55	78.47
1.8	-3.02	-1.76	3.8	-39.99	87.53
1.9	-4.03	-0.63	3.9	-42.42	97.26
2.0	-5.13	0.73	4.0	-44.87	107.67

TABLE A III 2.19

GRAM-CHARLIER SKEWNESS AND KURTOSIS CORRECTIONS TO THE GAUSSIAN

RECORD 085

N = 750 ΔT = 0.2 sec Mean = 10.42 cm σ = 2.81 cm

Skewness = -0.005 Kurtosis = -0.224

Wind Speed at 1.25m mean 7.87 m/s σ 1.31 m/s

Wind Direction at 1.83m mean 308 °T σ 9 °T

Estimated Fetch 2800 m

Air Temperature at 2.25m 10.53 C

Air Temperature at 0.50m 8.99 C

Water Temperature 12.70 C

t (σ)	Correction For -t (%)	Correction For +t (%)	t (σ)	Correction For -t (%)	Correction For +t (%)
0.0	5.60	5.60			
0.1	5.66	5.76	2.1	19.18	18.20
0.2	5.95	6.15	2.2	16.75	15.41
0.3	6.44	6.74	2.3	13.49	11.73
0.4	7.15	7.53	2.4	9.28	7.08
0.5	8.05	8.51	2.5	4.03	1.33
0.6	9.13	9.65	2.6	-2.36	-5.62
0.7	10.35	10.93	2.7	-10.02	-13.88
0.8	11.69	12.31	2.8	-19.07	-23.59
0.9	13.12	13.78	2.9	-29.62	-34.84
1.0	14.60	15.26	3.0	-41.80	-47.80
1.1	16.09	16.75	3.1	-55.74	-62.58
1.2	17.55	18.17	3.2	-71.59	-79.31
1.3	18.92	19.48	3.3	-89.46	-98.14
1.4	20.14	20.62	3.4	-109.53	-119.23
1.5	21.16	21.54	3.5	-131.92	-142.72
1.6	21.92	22.16	3.6	-156.80	-168.76
1.7	22.35	22.41	3.7	-184.33	-197.51
1.8	22.36	22.22	3.8	-214.65	-229.15
1.9	21.90	21.52	3.9	-247.95	-263.83
2.0	20.86	20.20	4.0	-284.40	-301.74

TABLE A III 2.20

GRAM-CHARLIER SKEWNESS AND KURTOSIS CORRECTIONS TO THE GAUSSIAN

RECORD 086

N = 870 ΔT = 0.2 sec Mean = 10.34 cm σ = 2.78 cm

Skewness = 0.011 Kurtosis = -0.078

Wind Speed at 1.25m mean 7.87 m/s σ 1.31 m/s

Wind Direction at 1.83m mean 308 °T σ 9 °T

Estimated Fetch 2800 m

Air Temperature at 2.25m 10.53 C

Air Temperature at 0.50m 8.99 C

Water Temperature 12.70 C

t (σ)	Correction For -t (%)	Correction For +t (%)	t (σ)	Correction For -t (%)	Correction For +t (%)
0.0	1.95	1.95			
0.1	2.10	1.88	2.1	5.42	7.60
0.2	2.33	1.89	2.2	4.12	7.08
0.3	2.62	1.98	2.3	2.46	6.32
0.4	2.98	2.14	2.4	0.42	5.28
0.5	3.38	2.38	2.5	-2.05	3.91
0.6	3.85	2.69	2.6	-4.97	2.19
0.7	4.35	3.07	2.7	-8.41	0.09
0.8	4.87	3.49	2.8	-12.40	-2.46
0.9	5.40	3.96	2.9	-16.97	-5.47
1.0	5.93	4.47	3.0	-22.20	-9.00
1.1	6.44	5.00	3.1	-28.11	-13.09
1.2	6.91	5.53	3.2	-34.76	-17.78
1.3	7.30	6.06	3.3	-42.21	-23.11
1.4	7.63	6.57	3.4	-50.50	-29.16
1.5	7.84	7.02	3.5	-59.69	-35.95
1.6	7.93	7.41	3.6	-69.83	-37.53
1.7	7.86	7.72	3.7	-80.98	-51.98
1.8	7.60	7.92	3.8	-93.21	-61.33
1.9	7.14	7.98	3.9	-106.56	-71.64
2.0	6.42	7.88	4.0	-121.12	-82.98

TABLE A III 2.21

GRAM-CHARLIER SKEWNESS AND KURTOSIS CORRECTIONS TO THE GAUSSIAN

RECORD 087

N = 750 ΔT = 0.2 sec Mean = 10.36 cm σ = 1.86 cm

Skewness = 0.005 Kurtosis = 0.165

Wind Speed at 1.25m mean 7.21 m/s σ 1.45 m/s

Wind Direction at 1.83m mean 302 °T σ 8 °T

Estimated Fetch 2300 m

Air Temperature at 2.25m 10.89 C

Air Temperature at 0.50m 10.56 C

Water Temperature 12.79 C

t (σ)	Correction For −t (%)	Correction For +t (%)	t (σ)	Correction For −t (%)	Correction For +t (%)
0.0	-4.13	-4.13			
0.1	-4.15	-4.25	2.1	-14.26	-13.28
0.2	-4.35	-4.55	2.2	-12.52	-11.18
0.3	-4.71	-5.01	2.3	-10.17	-8.38
0.4	-5.22	-5.60	2.4	-7.13	-4.93
0.5	-5.87	-6.33	2.5	-3.33	-0.63
0.6	-6.66	-7.18	2.6	1.31	4.57
0.7	-7.55	-8.11	2.7	6.88	10.74
0.8	-8.53	-9.15	2.8	13.45	17.97
0.9	-9.57	-10.23	2.9	21.13	26.35
1.0	-10.67	-11.33	3.0	30.00	36.00
1.1	-11.76	-12.42	3.1	40.16	47.00
1.2	-12.84	-13.46	3.2	51.71	59.43
1.3	-13.86	-14.42	3.3	64.76	73.44
1.4	-14.77	-15.25	3.4	79.40	89.10
1.5	-15.54	-15.92	3.5	95.75	106.55
1.6	-16.11	-16.35	3.6	113.92	125.88
1.7	-16.45	-16.51	3.7	136.04	147.22
1.8	-16.49	-16.35	3.8	156.20	170.70
1.9	-16.18	-15.80	3.9	180.55	196.43
2.0	-15.46	-14.80	4.0	207.20	224.54

TABLE A III 2.22

GRAM-CHARLIER SKEWNESS AND KURTOSIS CORRECTIONS TO THE GAUSSIAN

RECORD 088

N = 870 ΔT = 0.2 sec Mean = 10.17 cm σ = 2.01 cm

Skewness = -0.046 Kurtosis = 0.150

Wind Speed at 1.25m : mean 7.21 m/s σ 1.45 m/s

Wind Direction at 1.83m : mean 302 °T σ 8 °T

Estimated Fetch 2300 m

Air Temperature at 2.25m 10.89 C

Air Temperature at 0.50m 10.56 C

Water Temperature 12.79 C

t (σ)	Correction For -t (%)	Correction For +t (%)	t (σ)	Correction For -t (%)	Correction For +t (%)
0.0	-3.75	-3.75			
0.1	-4.28	-3.36	2.1	-7.97	-17.05
0.2	-4.96	-3.14	2.2	-4.56	-16.98
0.3	-5.75	-3.07	2.3	-0.37	-16.53
0.4	-6.66	-3.18	2.4	4.68	-15.64
0.5	-7.66	-3.44	2.5	10.66	-14.26
0.6	-8.72	-3.86	2.6	17.66	-12.32
0.7	-9.82	-4.44	2.7	25.77	-9.75
0.8	-10.93	-5.15	2.8	35.06	-6.50
0.9	-12.02	-5.98	2.9	45.65	-2.47
1.0	-13.07	-6.93	3.0	57.60	2.40
1.1	-14.02	-7.98	3.1	71.04	8.20
1.2	-14.83	-9.09	3.2	86.04	15.00
1.3	-15.47	-10.25	3.3	102.74	22.90
1.4	-15.88	-11.42	3.4	121.22	31.96
1.5	-16.03	-12.57	3.5	141.09	42.31
1.6	-15.88	-13.68	3.6	163.98	54.02
1.7	-15.28	-14.70	3.7	188.50	67.20
1.8	-14.27	-15.59	3.8	215.25	81.93
1.9	-12.76	-16.32	3.9	244.38	98.34
2.0	-10.68	-16.82	4.0	275.98	116.52

TABLE A III 2.23

GRAM-CHARLIER SKEWNESS AND KURTOSIS CORRECTIONS TO THE GAUSSIAN

RECORD 093

N = 750 ΔT = 0.2 sec Mean = 10.55 cm σ = 3.06 cm

Skewness = 0.144 Kurtosis = 0.216

Wind Speed at 1.25m' mean 8.20 m/s σ 1.00 m/s

Wind Direction at 1.83m' mean 305 °T σ 6 °T

Estimated Fetch 2500 m

Air Temperature at 2.25m 12.02 C

Air Temperature at 0.50m 11.86 C

Water Temperature 12.87 C

t (σ)	Correction For −t (%)	Correction For +t (%)	t (σ)	Correction For −t (%)	Correction For +t (%)
0.0	-5.40	-5.40			
0.1	-4.06	-6.94	2.1	-32.23	-3.81
0.2	-2.99	-8.67	2.2	-34.94	3.92
0.3	-2.17	-10.55	2.3	-37.44	13.12
0.4	-1.53	-12.53	2.4	-39.69	23.91
0.5	-1.39	-14.59	2.5	-41.59	36.41
0.6	-1.45	-16.65	2.6	-43.08	50.78
0.7	-1.83	-18.69	2.7	-44.07	67.13
0.8	-2.52	-20.64	2.8	-44.48	85.62
0.9	-3.51	-22.43	2.9	-44.23	106.39
1.0	-4.80	-24.00	3.0	-43.20	129.60
1.1	-6.38	-25.28	3.1	-41.31	155.41
1.2	-8.23	-26.21	3.2	-38.46	183.96
1.3	-10.34	-26.68	3.3	-34.53	215.43
1.4	-12.66	-26.64	3.4	-29.41	249.99
1.5	-15.19	-25.99	3.5	-22.99	287.81
1.6	-17.87	-24.63	3.6	-15.15	329.07
1.7	-20.68	-22.48	3.7	-5.75	373.95
1.8	-23.57	-19.43	3.8	5.30	422.64
1.9	-26.49	-15.37	3.9	18.18	475.32
2.0	-29.40	-10.20	4.0	33.00	532.20

TABLE A III 2.24

GRAM-CHARLIER SKEWNESS AND KURTOSIS CORRECTIONS TO THE GAUSSIAN

RECORD 094

N = 860 ΔT = 0.2 sec Mean = 10.13 cm σ = 3.36 cm

Skewness = 0.136 Kurtosis = 0.046

Wind Speed at 1.25m mean 8.20 m/s σ 1.00 m/s

Wind Direction at 1.83m mean 305 °T σ 6 °T

Estimated Fetch 2500 m

Air Temperature at 2.25m 12.02 C

Air Temperature at 0.50m 11.86 C

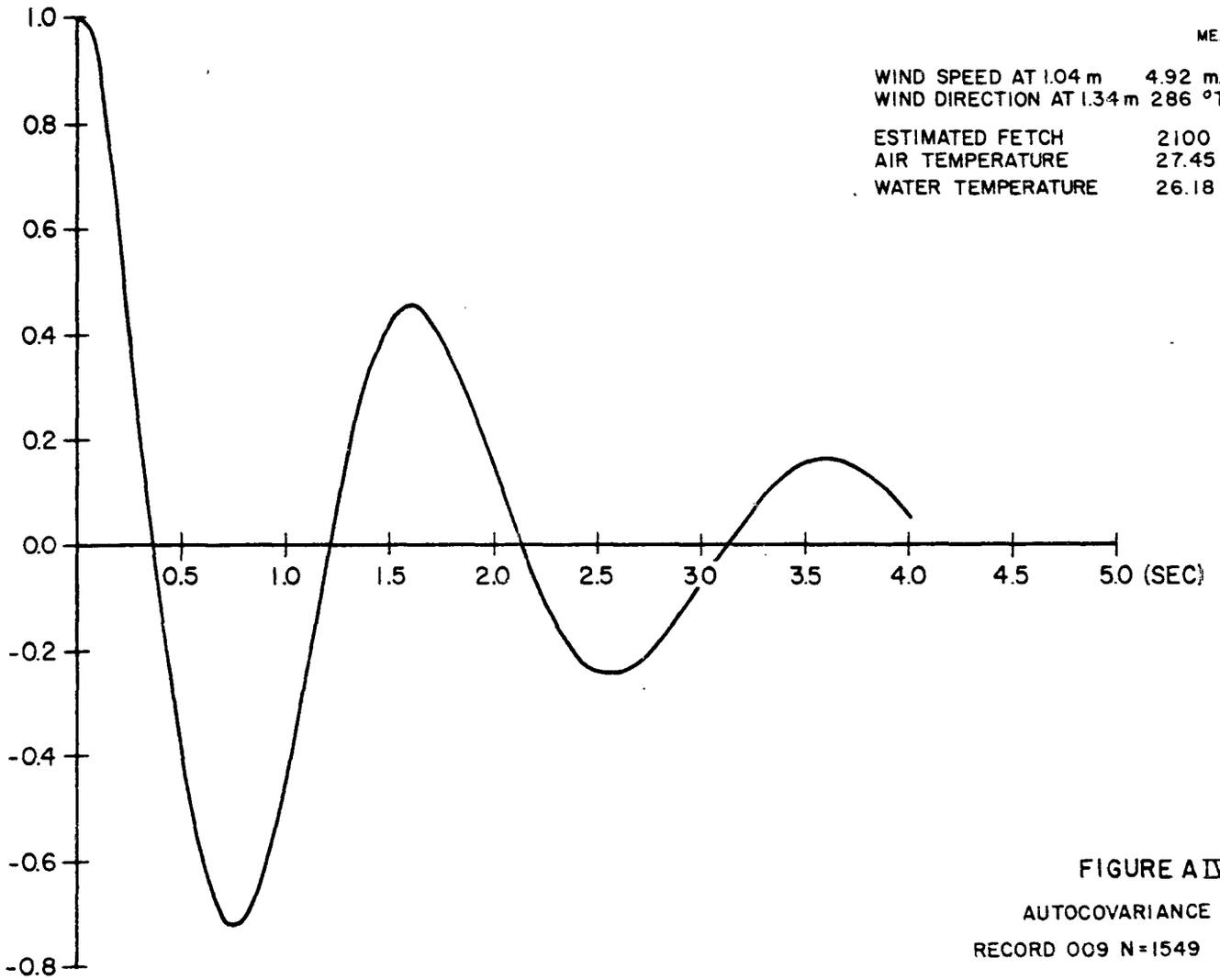
Water Temperature 12.87 C

t (σ)	Correction For −t (%)	Correction For +t (%)	t (σ)	Correction For −t (%)	Correction For +t (%)
0.0	-1.15	-1.15			
0.1	0.19	-2.53	2.1	-17.26	9.58
0.2	1.44	-3.92	2.2	-21.65	15.05
0.3	2.61	-5.31	2.3	-26.47	21.29
0.4	3.64	-6.66	2.4	-31.71	28.35
0.5	4.53	-7.93	2.5	-37.38	36.28
0.6	5.25	-9.11	2.6	-43.50	45.14
0.7	5.78	-10.16	2.7	-50.05	54.97
0.8	6.09	-11.03	2.8	-57.06	65.82
0.9	6.18	-11.70	2.9	-64.50	77.74
1.0	6.00	-12.14	3.0	-72.40	90.80
1.1	5.56	-12.30	3.1	-80.74	105.04
1.2	4.82	-12.16	3.2	-89.54	120.52
1.3	3.78	-11.66	3.3	-98.77	137.29
1.4	2.41	-10.79	3.4	-108.45	155.43
1.5	0.72	-9.48	3.5	-118.57	174.97
1.6	-1.34	-7.72	3.6	-129.12	195.98
1.7	-3.75	-5.45	3.7	-140.10	218.52
1.8	-6.54	-2.62	3.8	-151.50	242.64
1.9	-9.71	0.79	3.9	-163.32	268.42
2.0	-13.29	4.85	4.0	-175.55	295.91

APPENDIX IV SPECTRAL ANALYSIS OF THE WATER SURFACE

Autocovariance Functions of the Water Surface

Figures AIV 1.01 to AIV 1.24 on pages AIV-3 to AIV-26 show the autocovariance functions of the wave records. Tables AIV 1.01 to AIV 1.24 on pages AIV-27 to AIV-38 are the values from which the plots were made. An autocovariance function is an autocorrelation function computed with mean deviations rather than with raw data. Both figures and tables have been scaled to one at zero.



	MEAN	σ
WIND SPEED AT 1.04 m	4.92 m/s	0.58 m/s
WIND DIRECTION AT 1.34 m	286 °T	8 °T
ESTIMATED FETCH	2100 m	
AIR TEMPERATURE	27.45 C	
WATER TEMPERATURE	26.18 C	

FIGURE A IV 1.01

AUTOCOVARIANCE FUNCTION

RECORD 009 N=1549 ΔT=0.1 sec

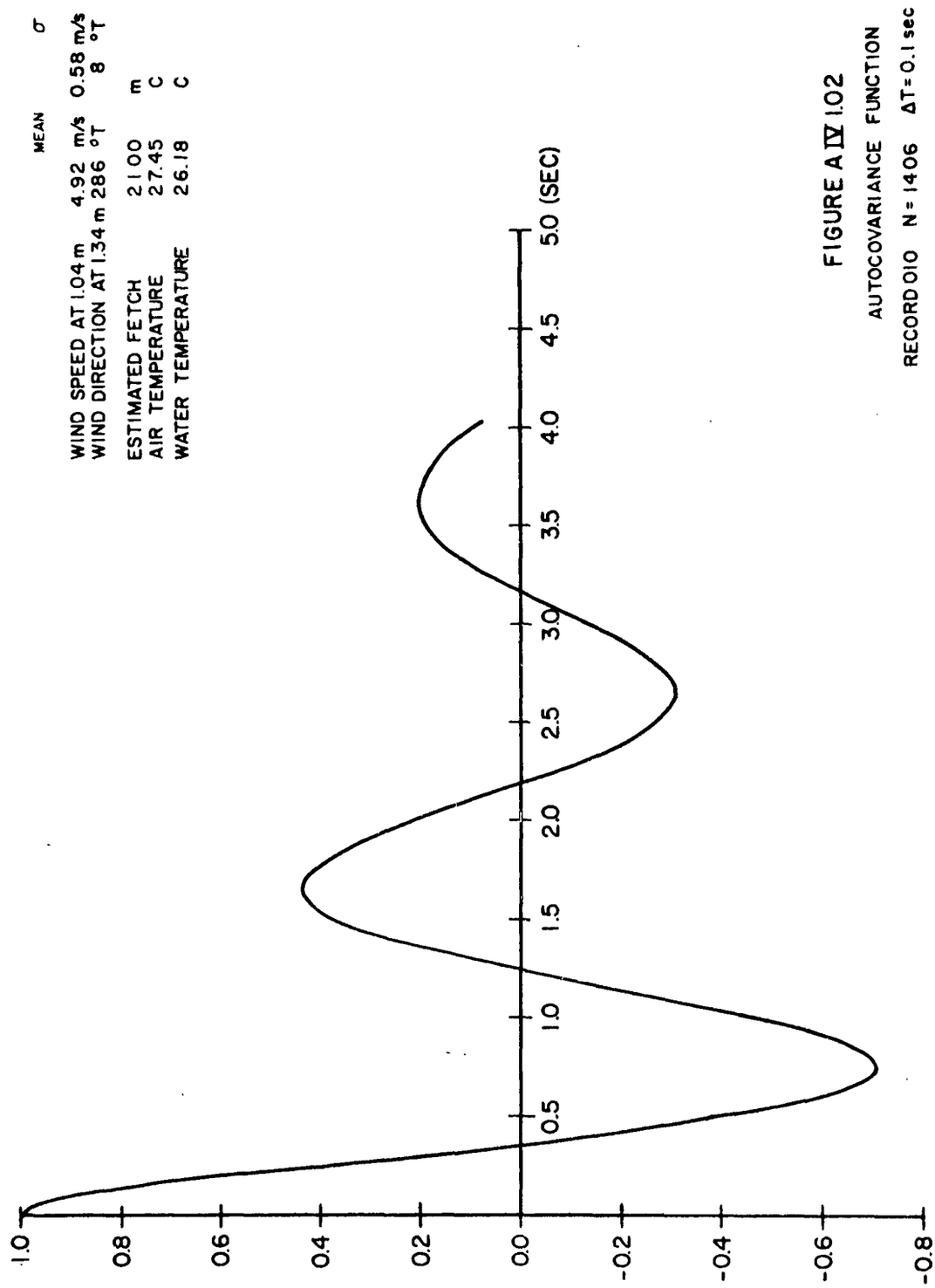
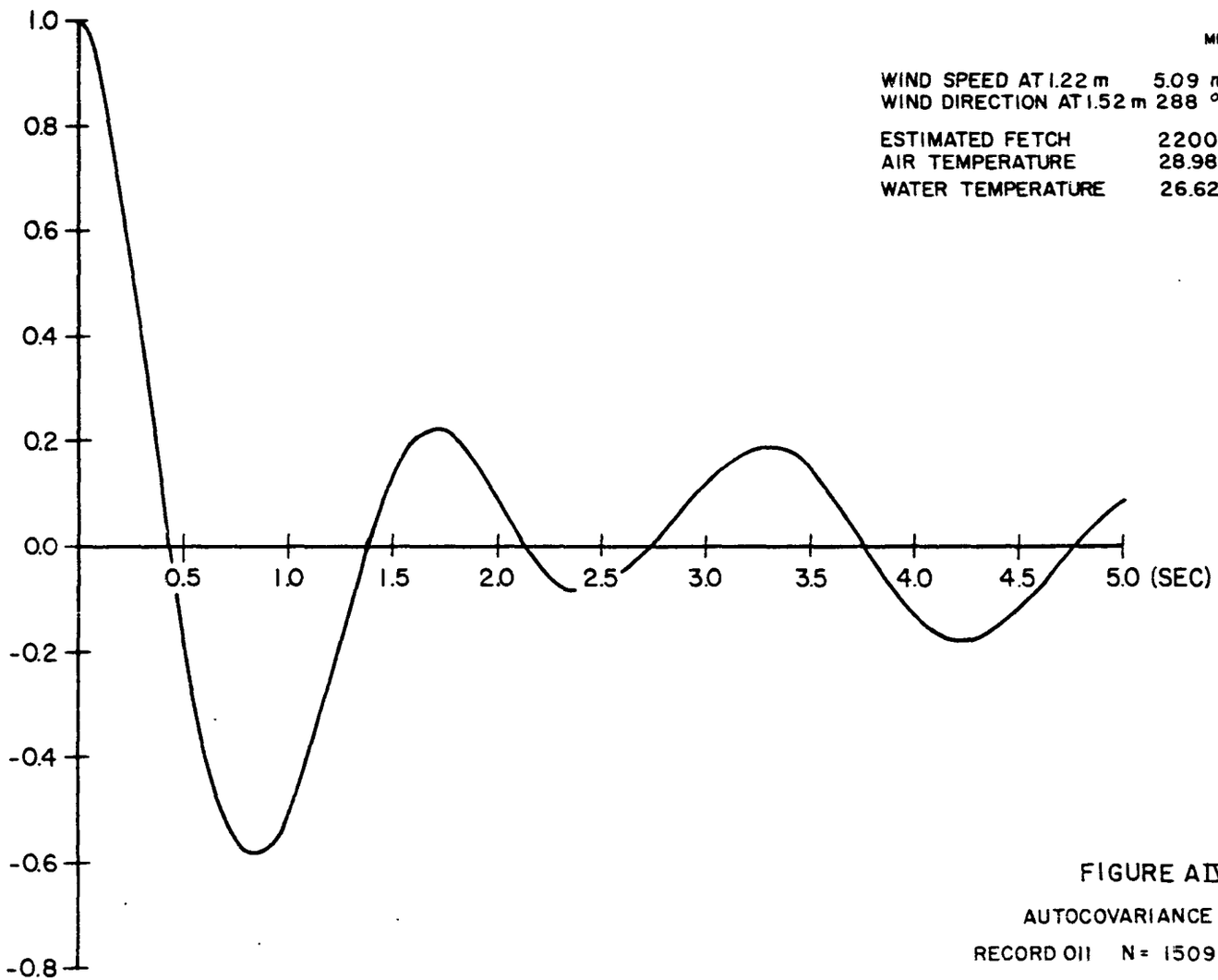


FIGURE A IV 1.02

AUTOCOVARIANCE FUNCTION

RECORD 010 N = 1406 ΔT = 0.1 sec



	MEAN	σ
WIND SPEED AT 1.22 m	5.09 m/s	0.58 m/s
WIND DIRECTION AT 1.52 m	288 °T	9 °T
ESTIMATED FETCH	2200	m
AIR TEMPERATURE	28.98	C
WATER TEMPERATURE	26.62	C

FIGURE AIV1.03

AUTOCOVARIANCE FUNCTION

RECORD 011 N= 1509 ΔT=0.1 sec

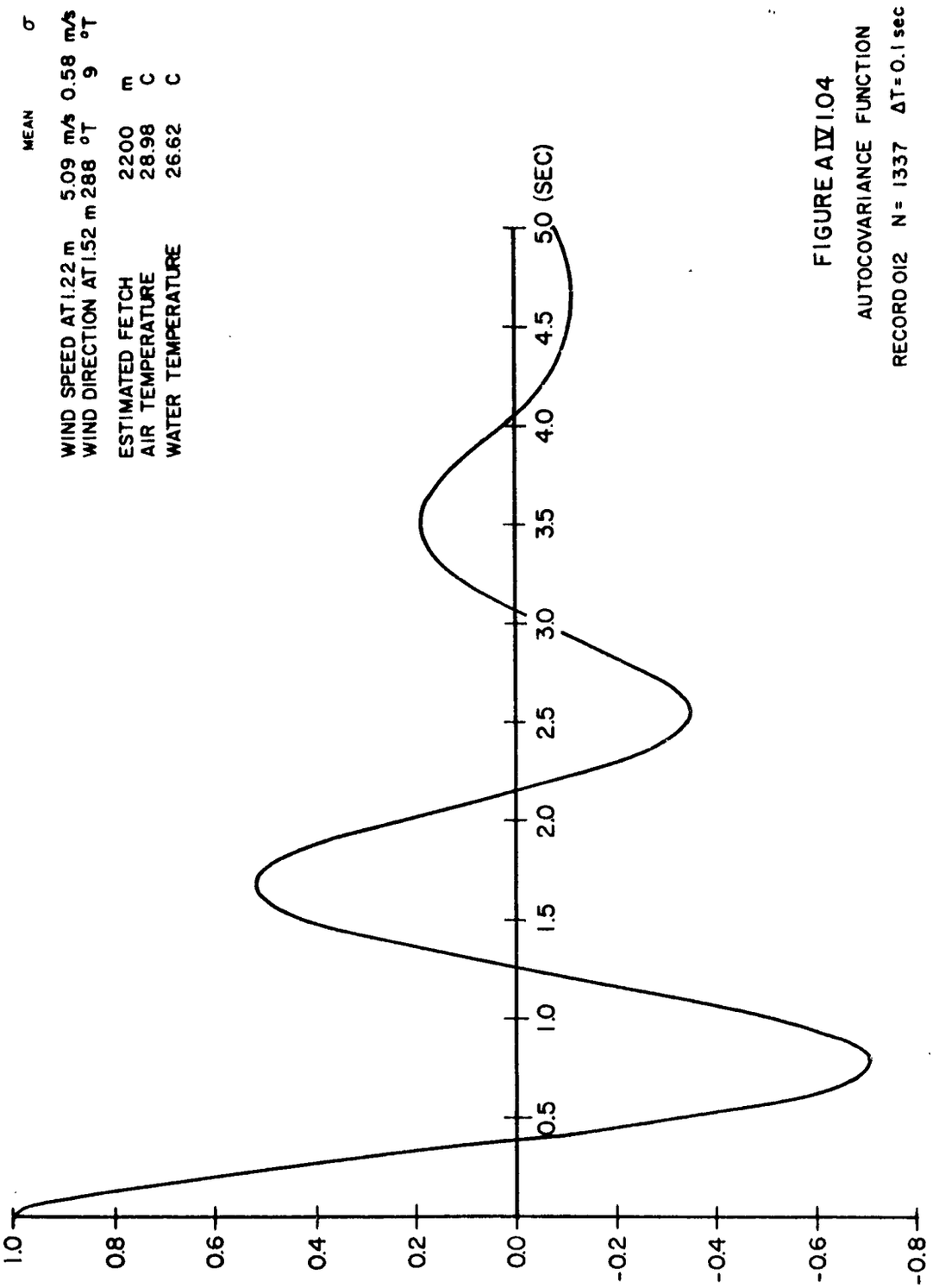
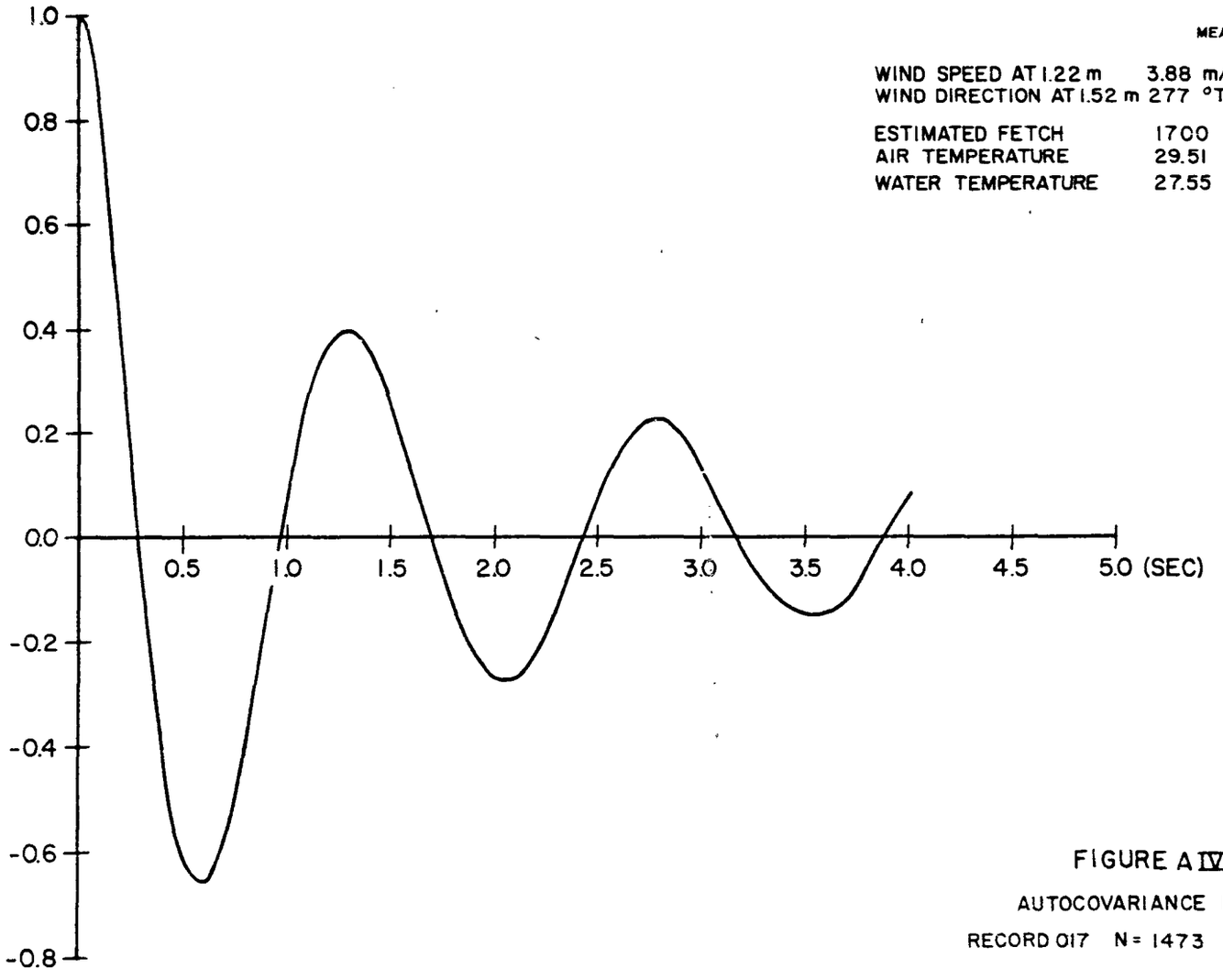


FIGURE A IV 1.04

AUTOCOVARIANCE FUNCTION

RECORD 012 N = 1337 ΔT = 0.1 sec

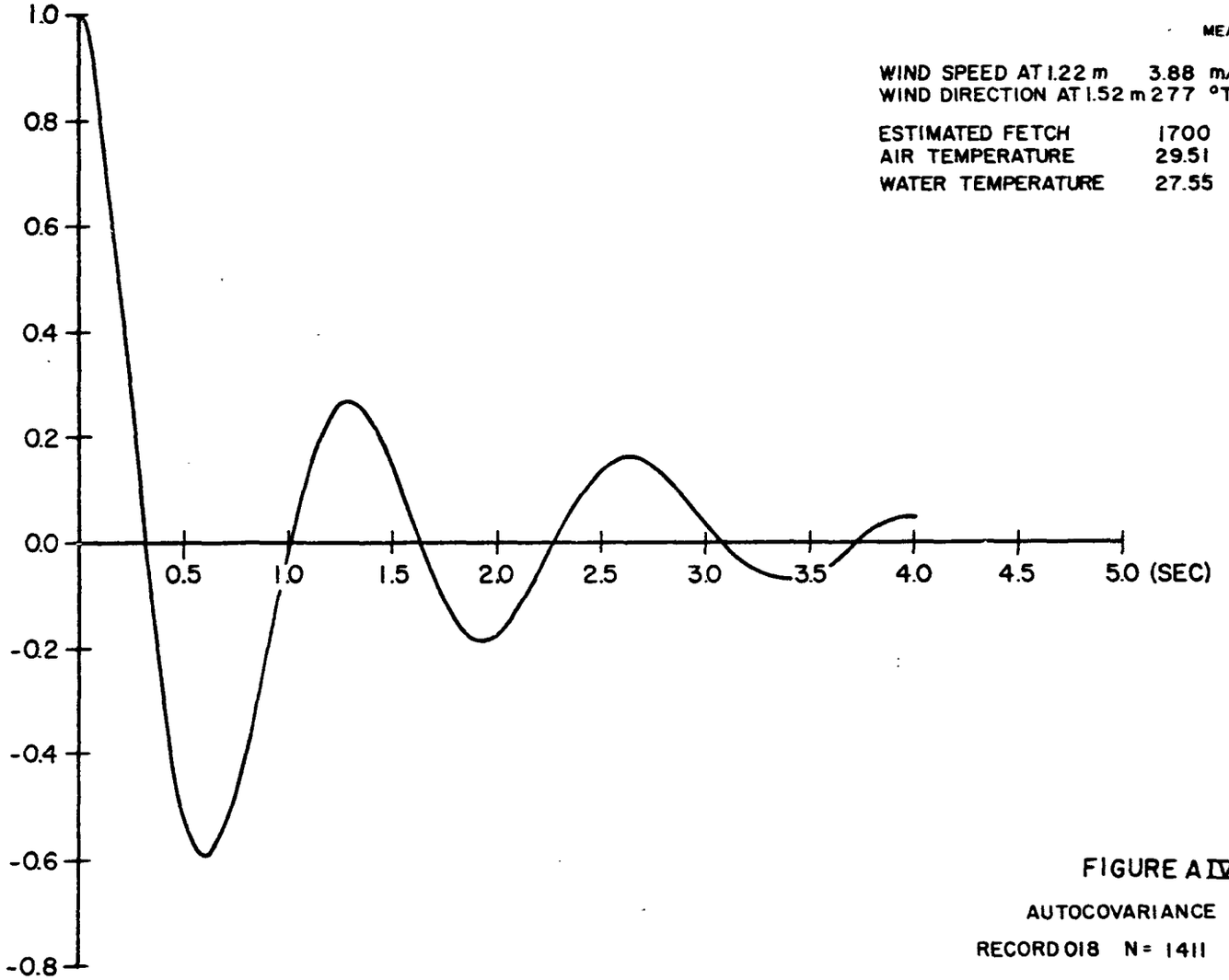


	MEAN	σ
WIND SPEED AT 1.22 m	3.88 m/s	0.45 m/s
WIND DIRECTION AT 1.52 m	277 °T	10 °T
ESTIMATED FETCH	1700	m
AIR TEMPERATURE	29.51	C
WATER TEMPERATURE	27.55	C

FIGURE A IV 1.05

AUTOCOVARIANCE FUNCTION

RECORD 017 N = 1473 ΔT = 0.1 sec

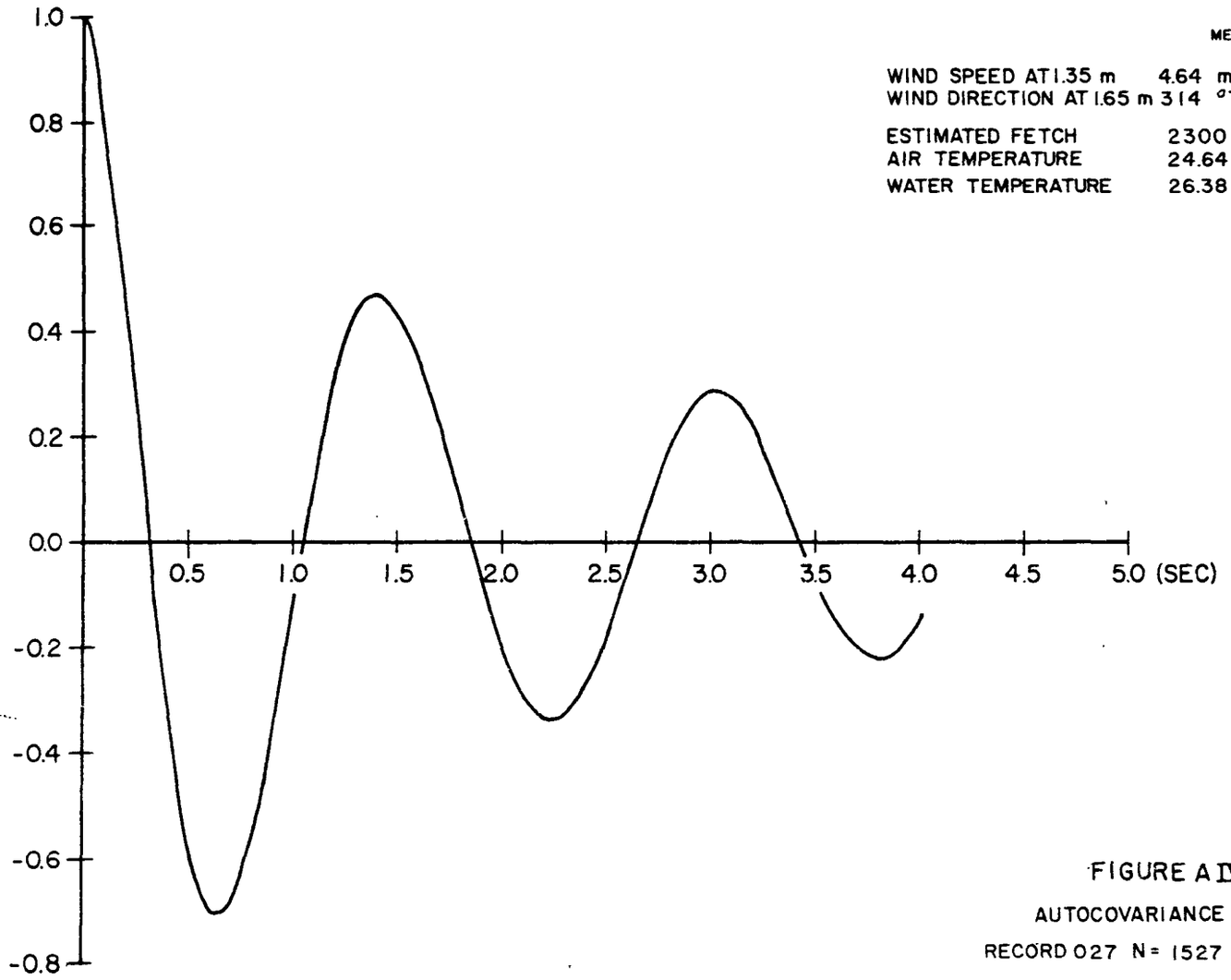


	MEAN		σ	
WIND SPEED AT 1.22 m	3.88	m/s	0.45	m/s
WIND DIRECTION AT 1.52 m	277	°T	10	°T
ESTIMATED FETCH	1700	m		
AIR TEMPERATURE	29.51	C		
WATER TEMPERATURE	27.55	C		

FIGURE A IV 1.06

AUTOCOVARIANCE FUNCTION

RECORD 018 N = 1411 ΔT = 0.1 sec

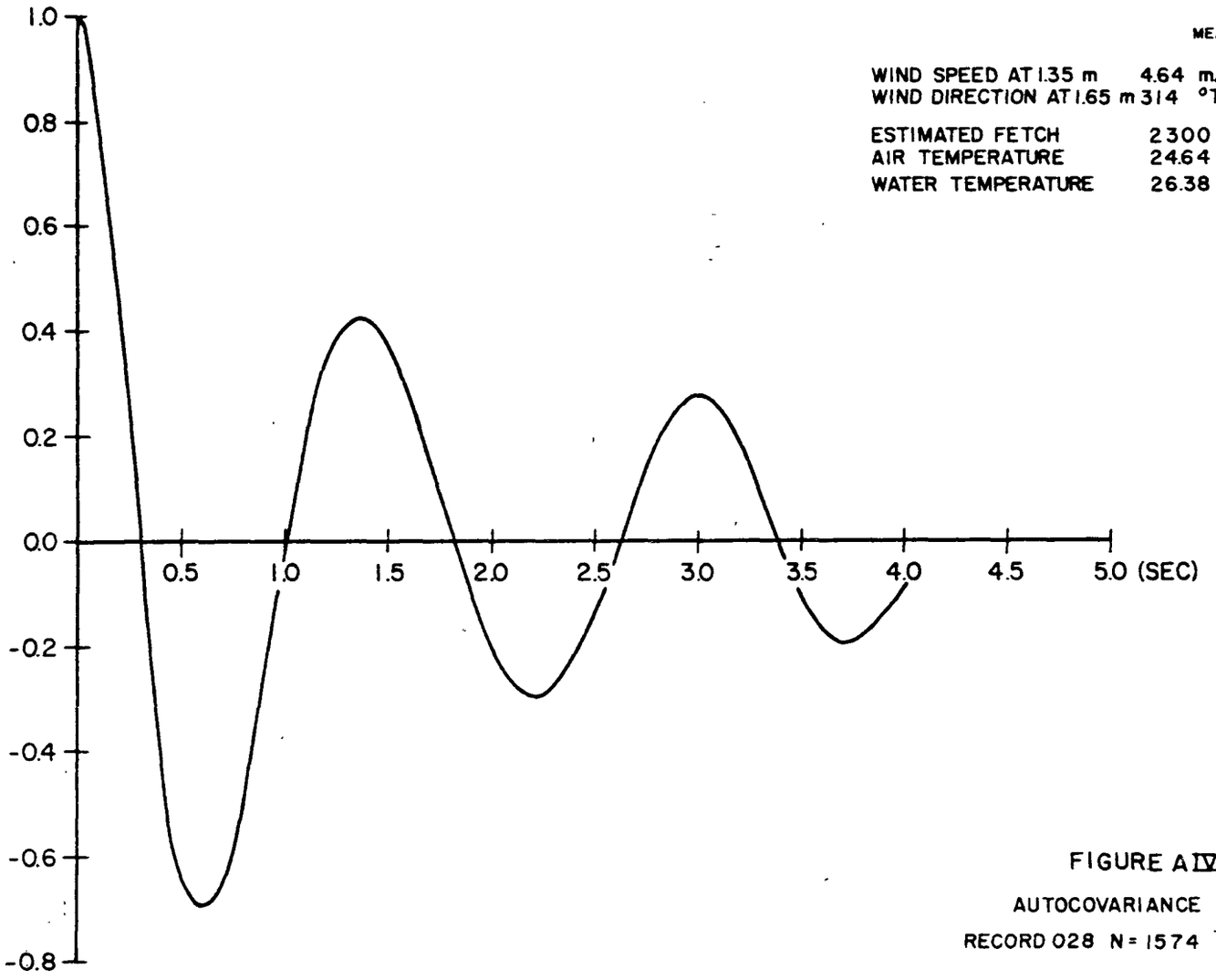


	MEAN		σ	
WIND SPEED AT 1.35 m	4.64	m/s	0.56	m/s
WIND DIRECTION AT 1.65 m	314	°T	7	°T
ESTIMATED FETCH	2300	m		
AIR TEMPERATURE	24.64	C		
WATER TEMPERATURE	26.38	C		

FIGURE A IV 1.07

AUTOCOVARIANCE FUNCTION

RECORD 027 N = 1527 ΔT = 0.1 sec

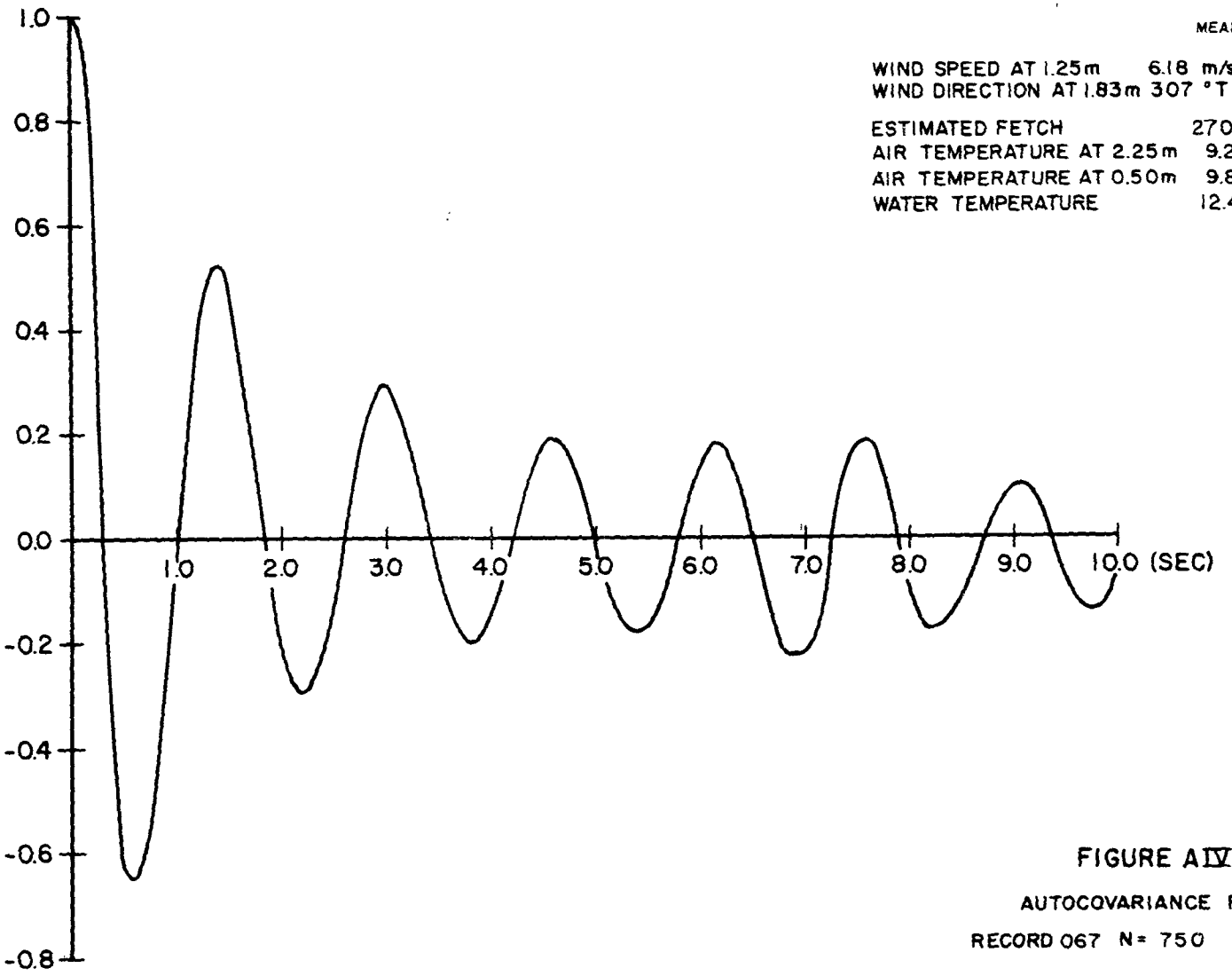


	MEAN	σ
WIND SPEED AT 1.35 m	4.64 m/s	0.56 m/s
WIND DIRECTION AT 1.65 m	314 °T	7 °T
ESTIMATED FETCH	2300 m	
AIR TEMPERATURE	24.64 C	
WATER TEMPERATURE	26.38 C	

FIGURE A IV 1.08

AUTOCOVARIANCE FUNCTION

RECORD 028 N = 1574 ΔT = 0.1 sec

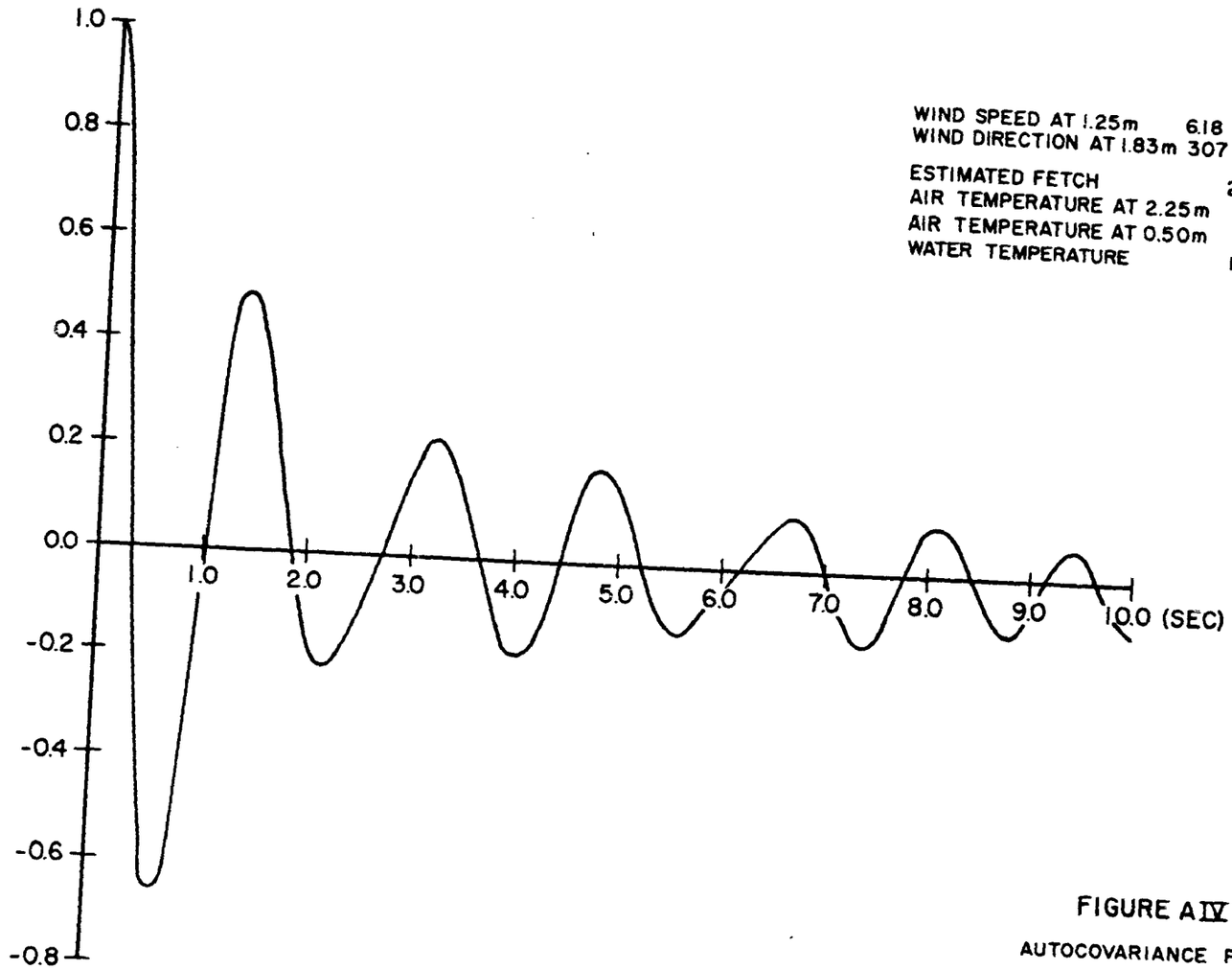


	MEAN	σ
WIND SPEED AT 1.25m	6.18 m/s	1.09 m/s
WIND DIRECTION AT 1.83m	307 °T	7 °T
ESTIMATED FETCH	2700 m	
AIR TEMPERATURE AT 2.25m	9.25 C	
AIR TEMPERATURE AT 0.50m	9.88 C	
WATER TEMPERATURE	12.46 C	

FIGURE AIV 1.09

AUTOCOVARIANCE FUNCTION

RECORD 067 N= 750 ΔT= 0.2sec

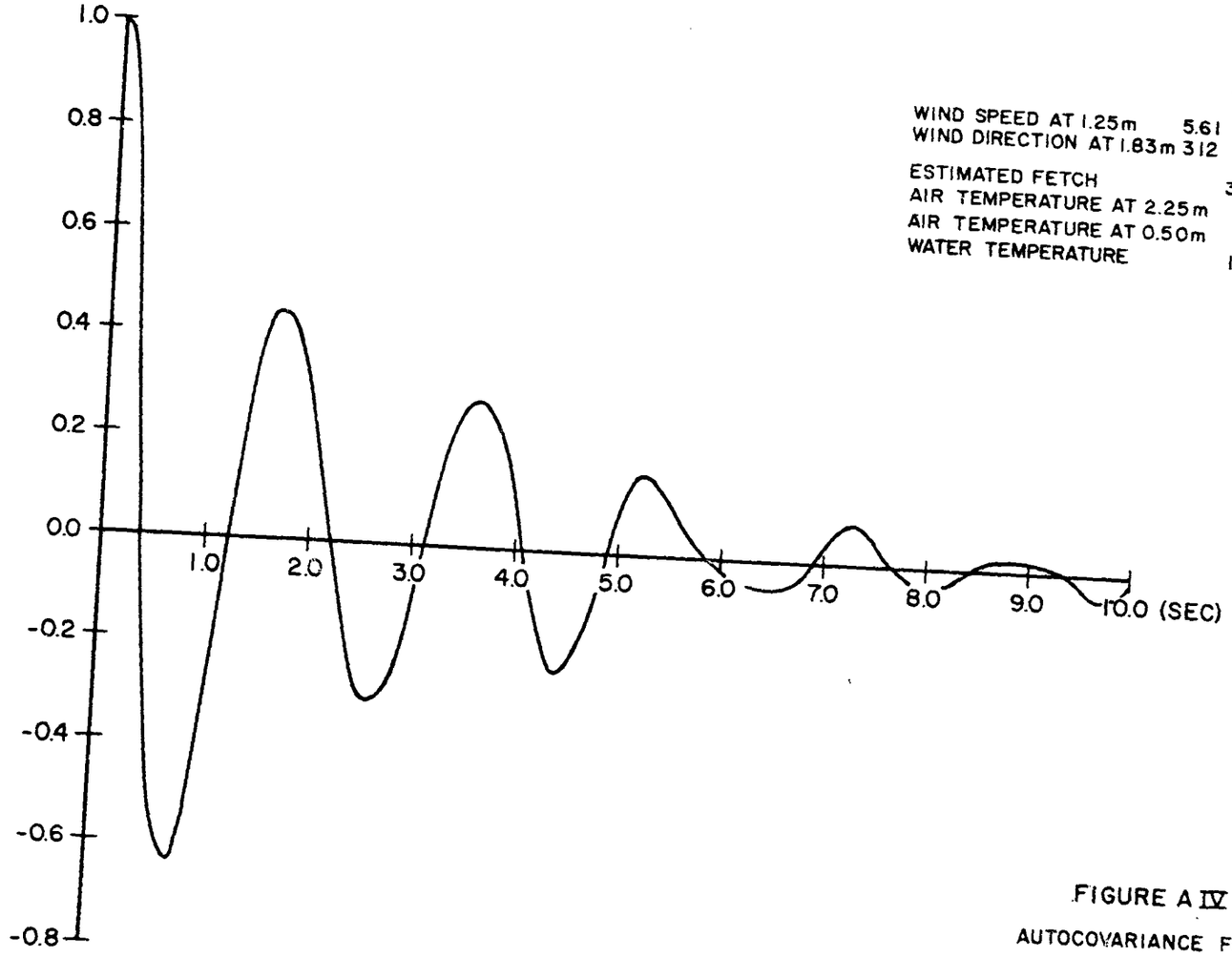


	MEAN		σ	
WIND SPEED AT 1.25m	6.18	m/s	1.09	m/s
WIND DIRECTION AT 1.83m	307	°T	7	°T
ESTIMATED FETCH	2700	m		
AIR TEMPERATURE AT 2.25m	9.25	C		
AIR TEMPERATURE AT 0.50m	9.88	C		
WATER TEMPERATURE	12.46	C		

FIGURE A IV 1.10

AUTOCOVARIANCE FUNCTION

RECORD 068 N = 850 ΔT = 0.2sec

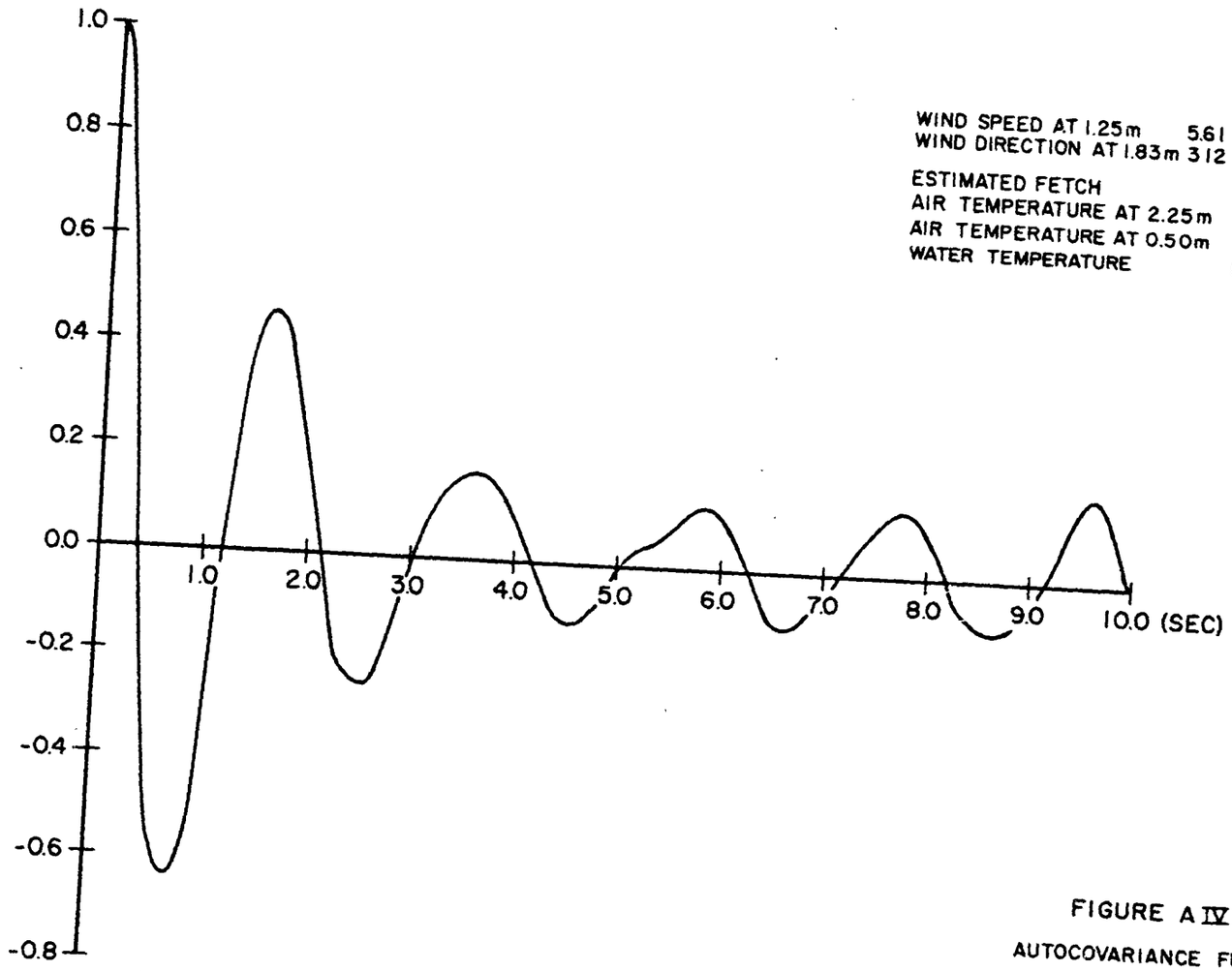


	MEAN		σ	
WIND SPEED AT 1.25m	5.61	m/s	0.98	m/s
WIND DIRECTION AT 1.83m	312	°T	9	°T
ESTIMATED FETCH	3000	m		
AIR TEMPERATURE AT 2.25m	9.78	C		
AIR TEMPERATURE AT 0.50m	9.52	C		
WATER TEMPERATURE	12.45	C		

FIGURE A IV 1.11

AUTOCOVARIANCE FUNCTION

RECORD 069 N= 750 ΔT= 0.2sec

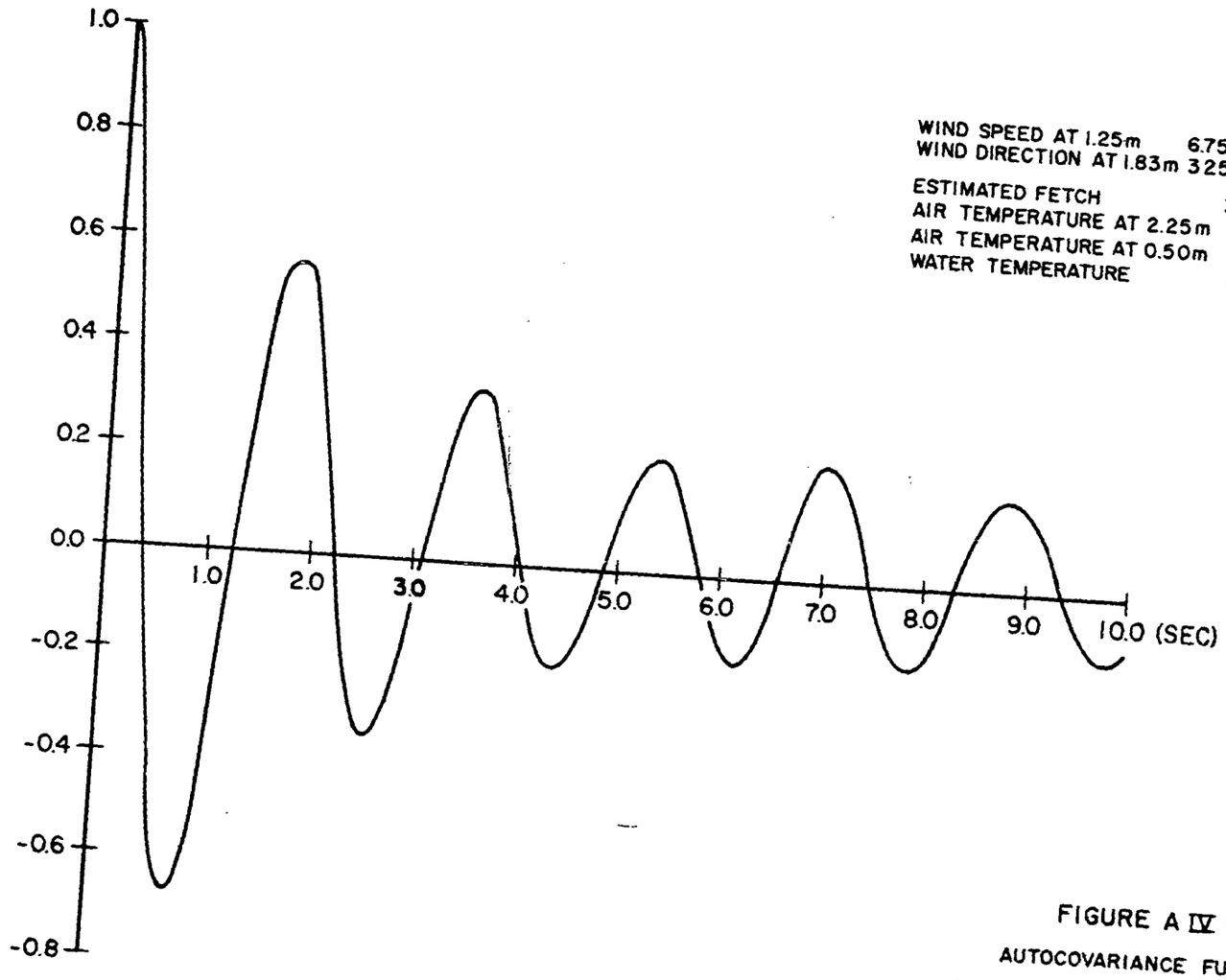


	MEAN	σ
WIND SPEED AT 1.25m	5.61 m/s	0.98 m/s
WIND DIRECTION AT 1.83m	312 °T	9 °T
ESTIMATED FETCH	3000 m	
AIR TEMPERATURE AT 2.25m	9.78 C	
AIR TEMPERATURE AT 0.50m	9.52 C	
WATER TEMPERATURE	12.45 C	

FIGURE A IV 1.12

AUTOCOVARIANCE FUNCTION

RECORD 070 N= 880 ΔT= 0.2sec

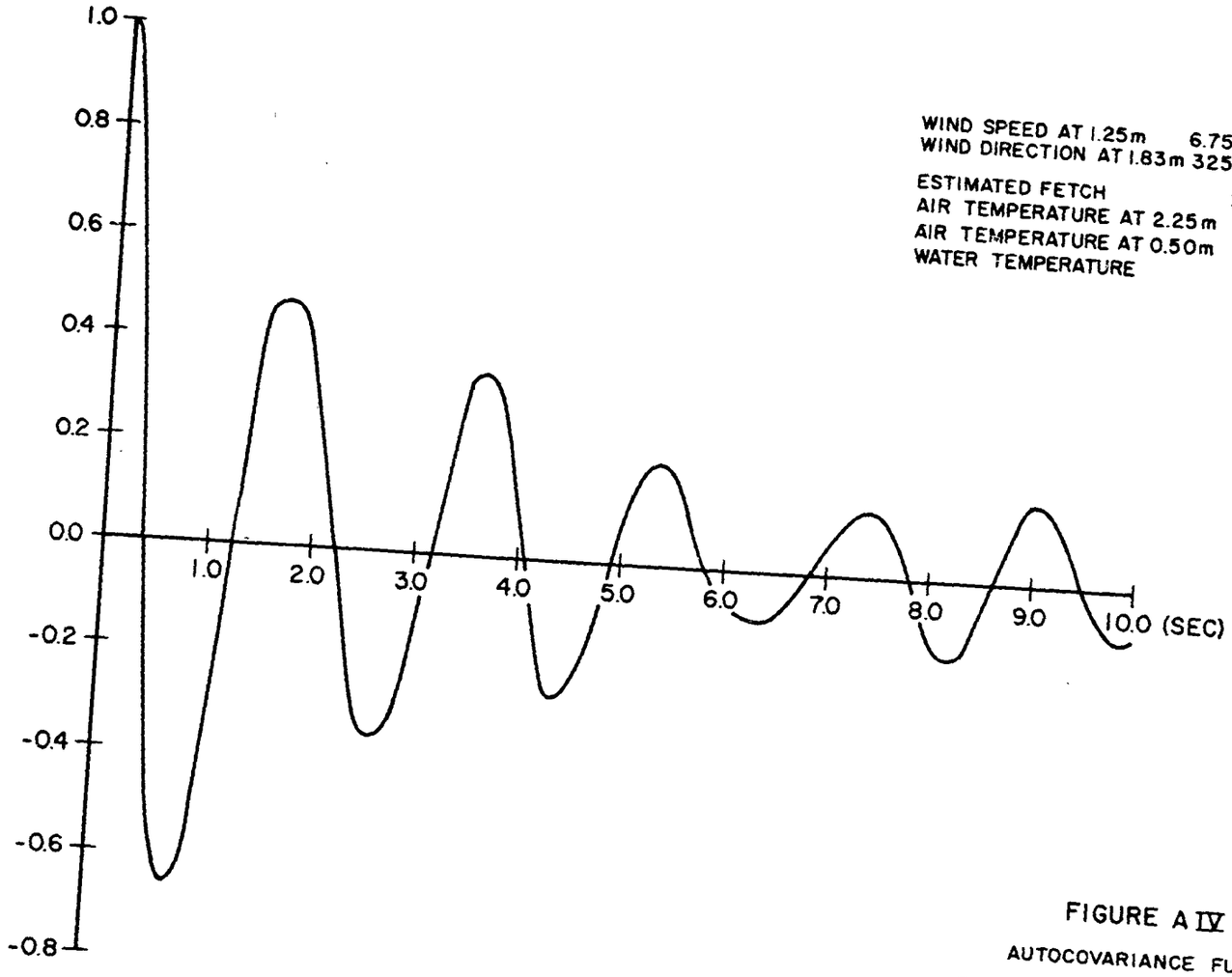


	MEAN		σ	
WIND SPEED AT 1.25m	6.75	m/s	1.09	m/s
WIND DIRECTION AT 1.83m	325	°T	8	°T
ESTIMATED FETCH	3000	m		
AIR TEMPERATURE AT 2.25m	9.92	C		
AIR TEMPERATURE AT 0.50m	9.86	C		
WATER TEMPERATURE	12.52	C		

FIGURE A IV 1.13

AUTOCOVARIANCE FUNCTION

RECORD 075 N= 750 ΔT= 0.2sec

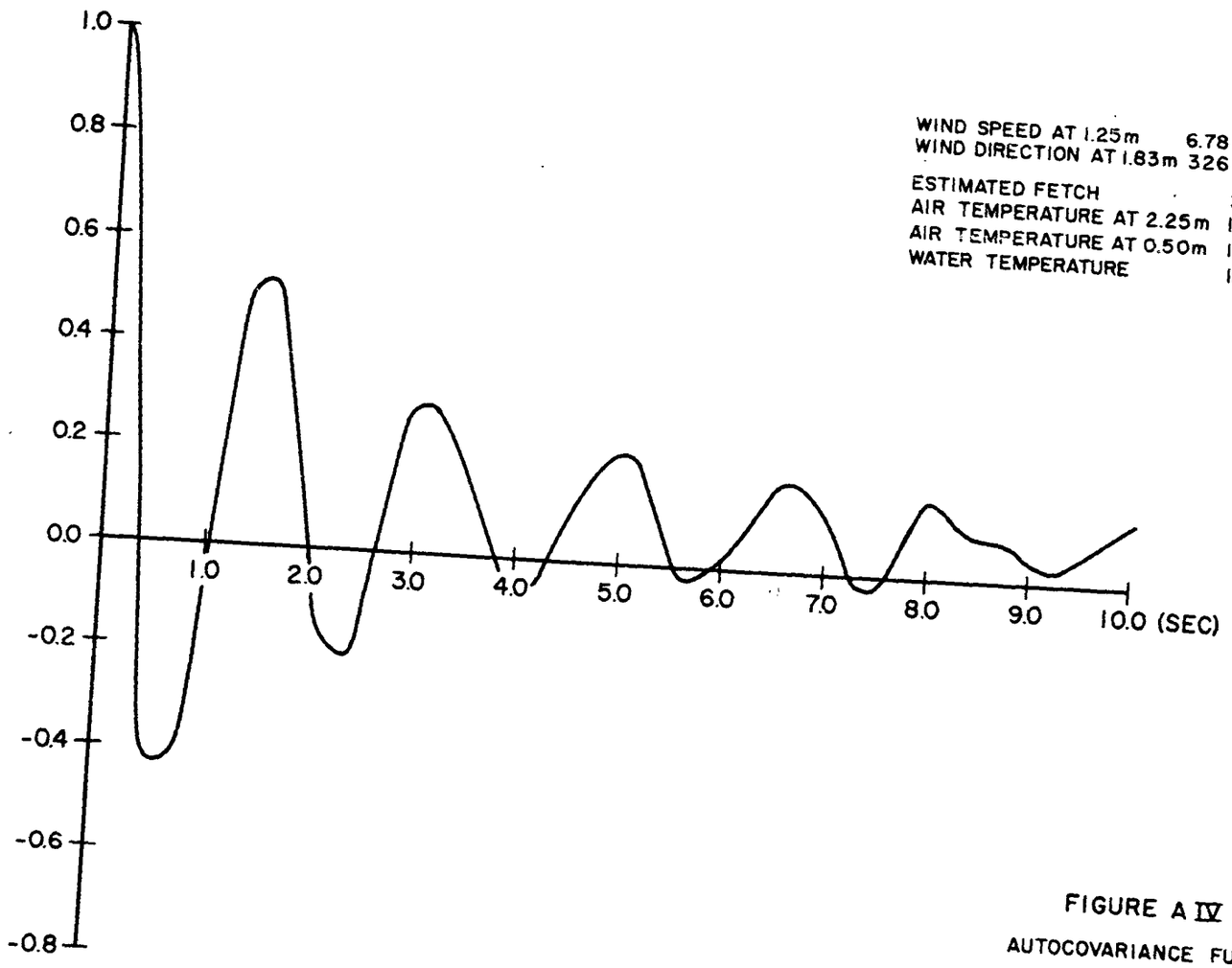


	MEAN		σ	
WIND SPEED AT 1.25m	6.75	m/s	1.09	m/s
WIND DIRECTION AT 1.83m	325	°T	8	°T
ESTIMATED FETCH	3000	m		
AIR TEMPERATURE AT 2.25m	9.92	C		
AIR TEMPERATURE AT 0.50m	9.86	C		
WATER TEMPERATURE	12.52	C		

FIGURE A IV 1.14

AUTOCOVARIANCE FUNCTION

RECORD 076 N= 850 ΔT= 0.2sec

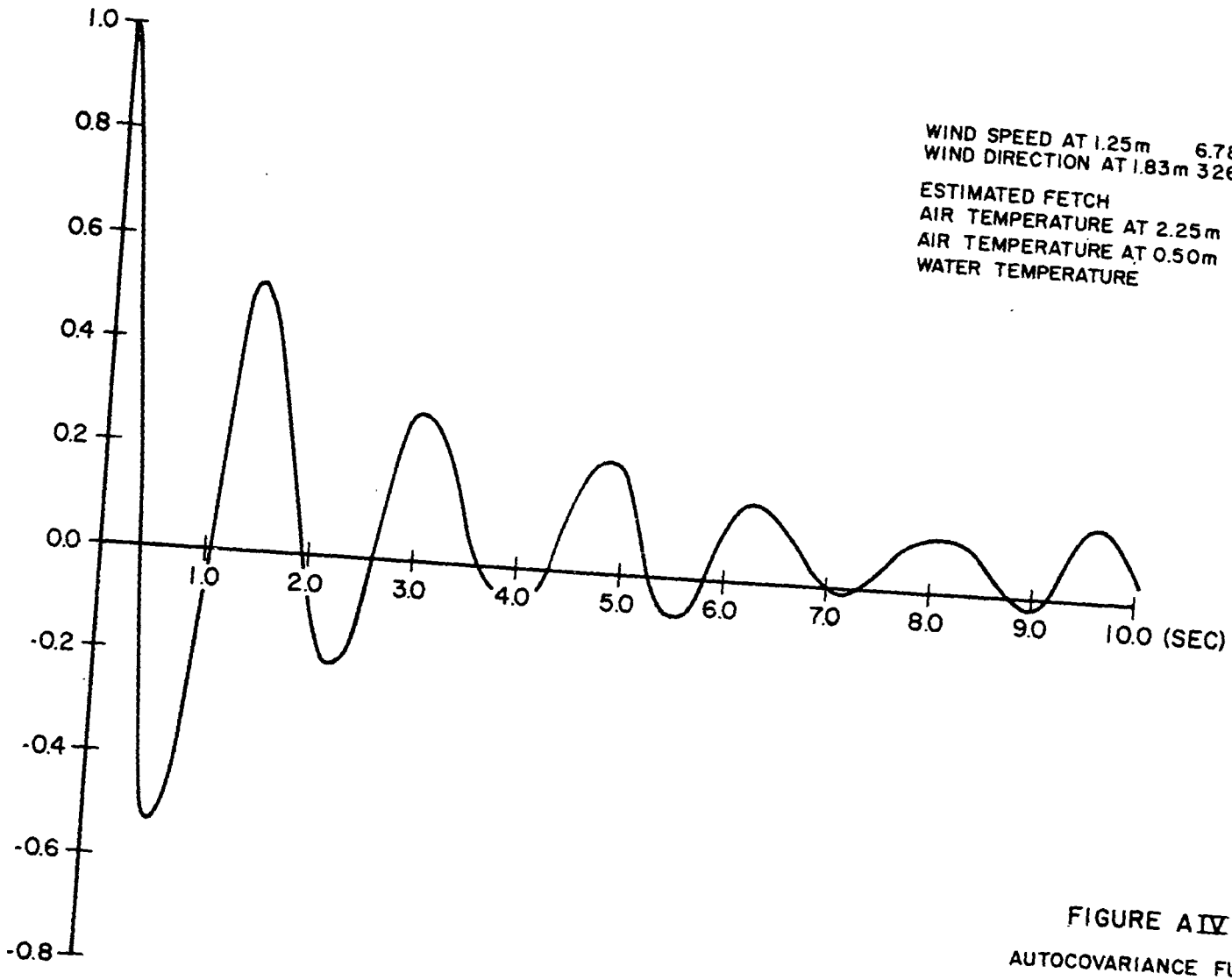


	MEAN		σ	
WIND SPEED AT 1.25m	6.78	m/s	1.17	m/s
WIND DIRECTION AT 1.83m	326	°T	8	°T
ESTIMATED FETCH	3000	m		
AIR TEMPERATURE AT 2.25m	10.42	C		
AIR TEMPERATURE AT 0.50m	10.46	C		
WATER TEMPERATURE	12.69	C		

FIGURE A IV 1.15

AUTOCOVARIANCE FUNCTION

RECORD 081 N= 750 ΔT= 0.2sec



	MEAN		σ	
WIND SPEED AT 1.25m	6.78	m/s	1.17	m/s
WIND DIRECTION AT 1.83m	326	°T	8	°T
ESTIMATED FETCH	3000.	m		
AIR TEMPERATURE AT 2.25m	10.42	C		
AIR TEMPERATURE AT 0.50m	10.46	C		
WATER TEMPERATURE	12.69	C		

FIGURE A IV 1.16

AUTOCOVARIANCE FUNCTION

RECORD 082 N= 888 ΔT= 0.2sec

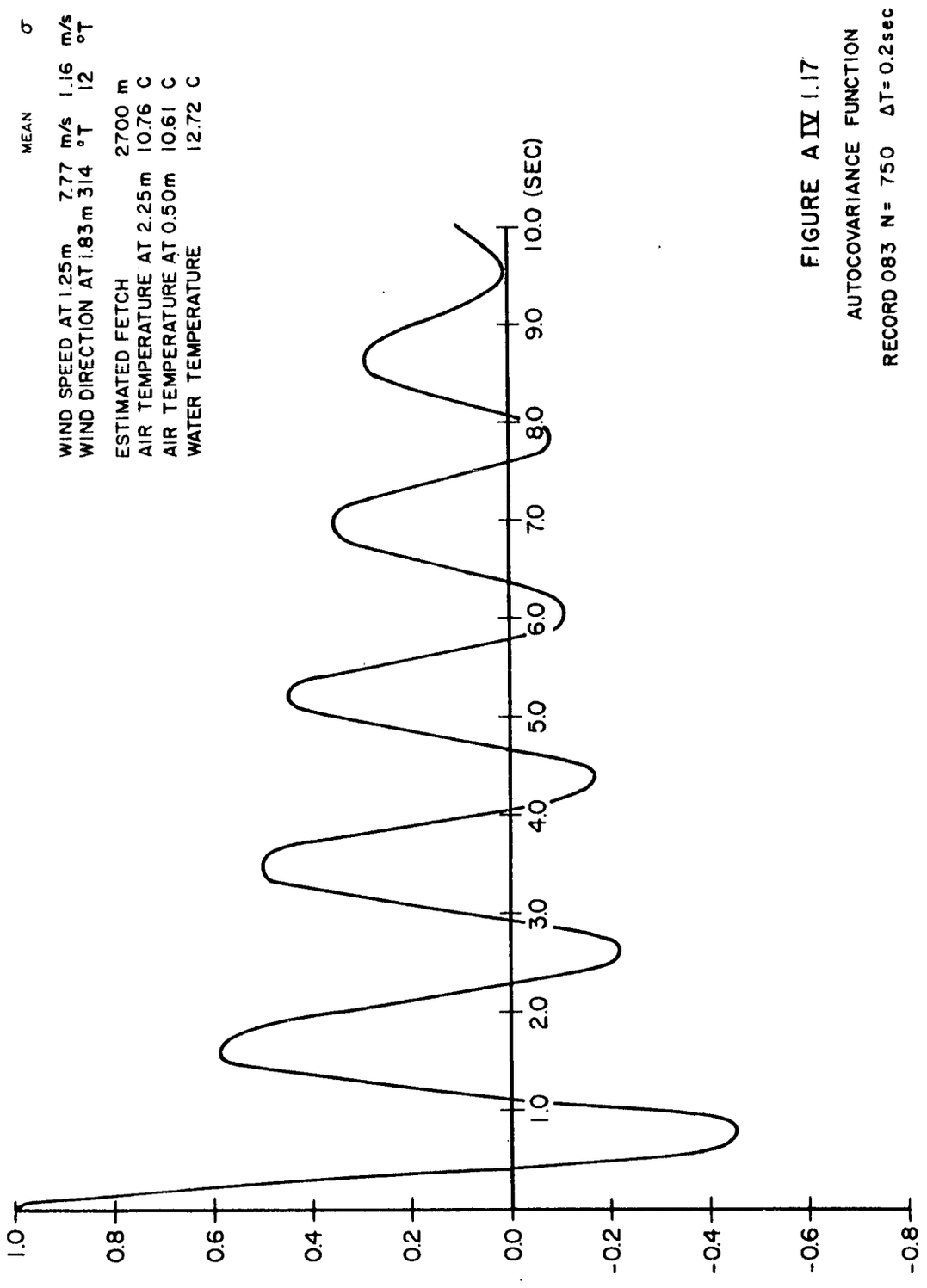


FIGURE A IV 1.17

AUTOCOVARIANCE FUNCTION

RECORD 083 N= 750 ΔT=0.2sec

	MEAN	σ
WIND SPEED AT 1.25m	7.77 m/s	1.16 m/s
WIND DIRECTION AT 1.83m	314 °T	12 °T
ESTIMATED FETCH	2700 m	
AIR TEMPERATURE AT 2.25m	10.76 C	
AIR TEMPERATURE AT 0.50m	10.61 C	
WATER TEMPERATURE	12.72 C	

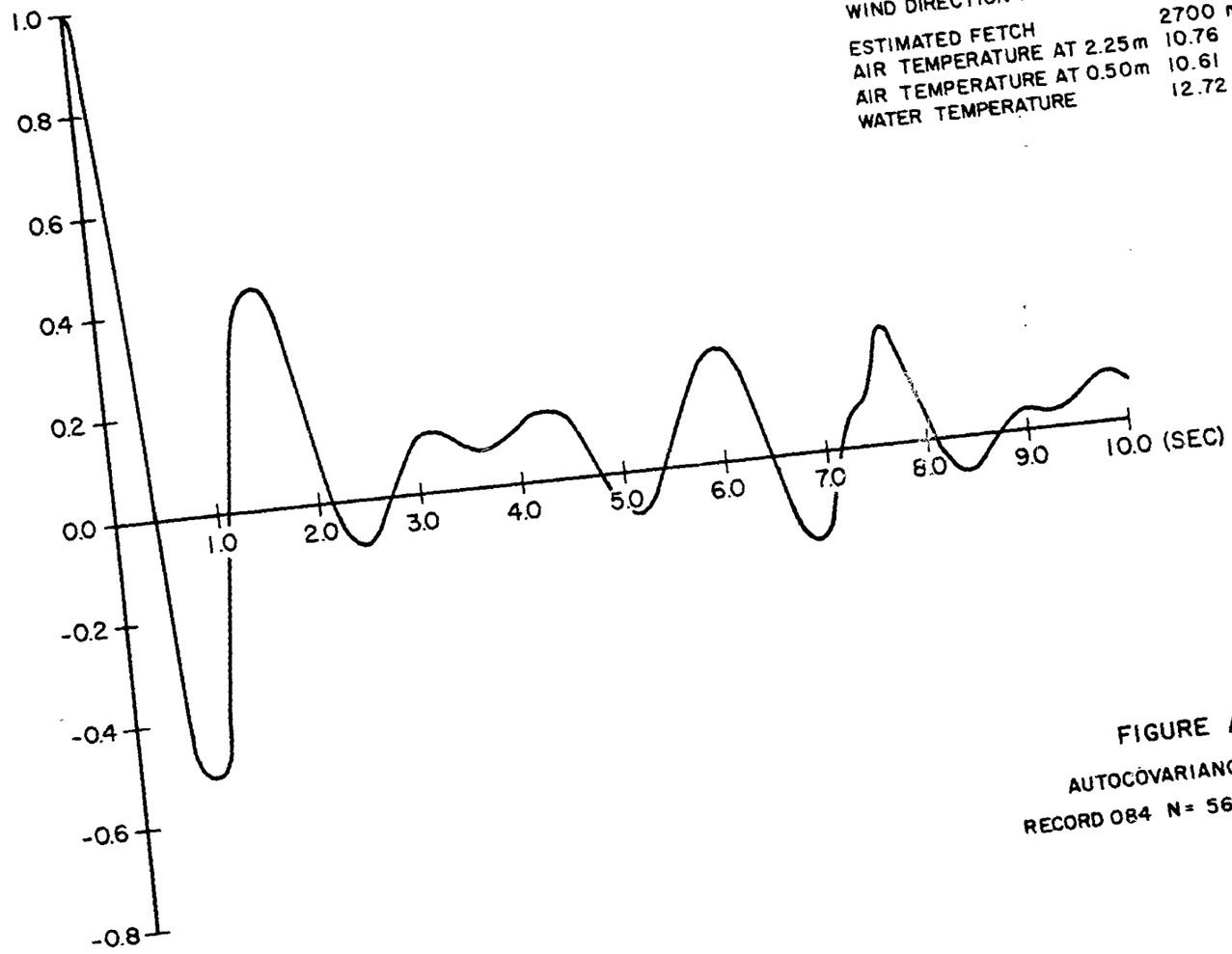
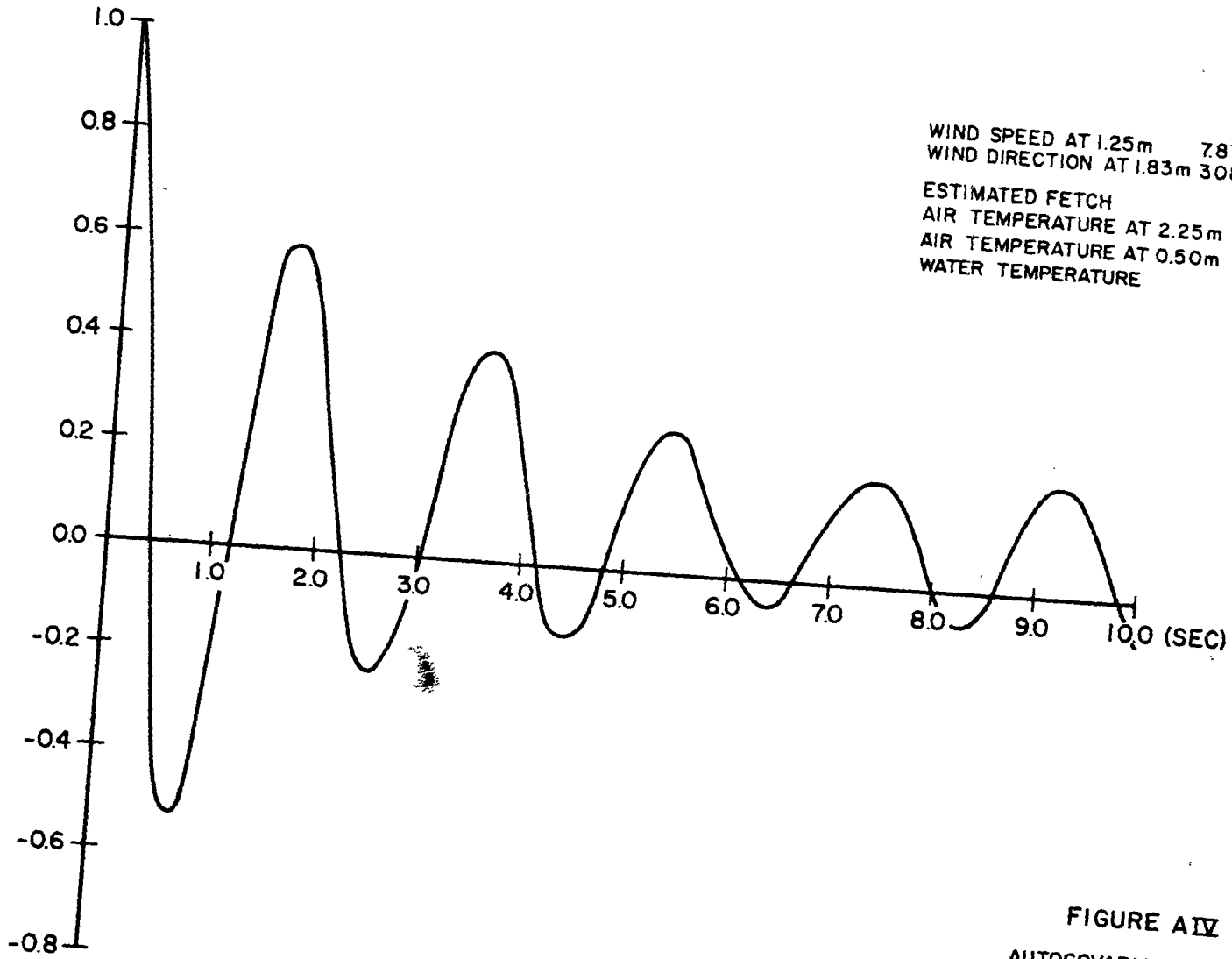


FIGURE AIV 1.18

AUTOCOVARIANCE FUNCTION

RECORD 084 N= 566 ΔT= 0.2sec



	MEAN		σ	
WIND SPEED AT 1.25m	7.87	m/s	1.31	m/s
WIND DIRECTION AT 1.83m	308	°T	9	°T
ESTIMATED FETCH	2800	m		
AIR TEMPERATURE AT 2.25m	10.53	C		
AIR TEMPERATURE AT 0.50m	8.99	C		
WATER TEMPERATURE	12.70	C		

FIGURE A IV 1.19

AUTOCOVARIANCE FUNCTION

RECORD 085 N= 750 ΔT= 0.2sec

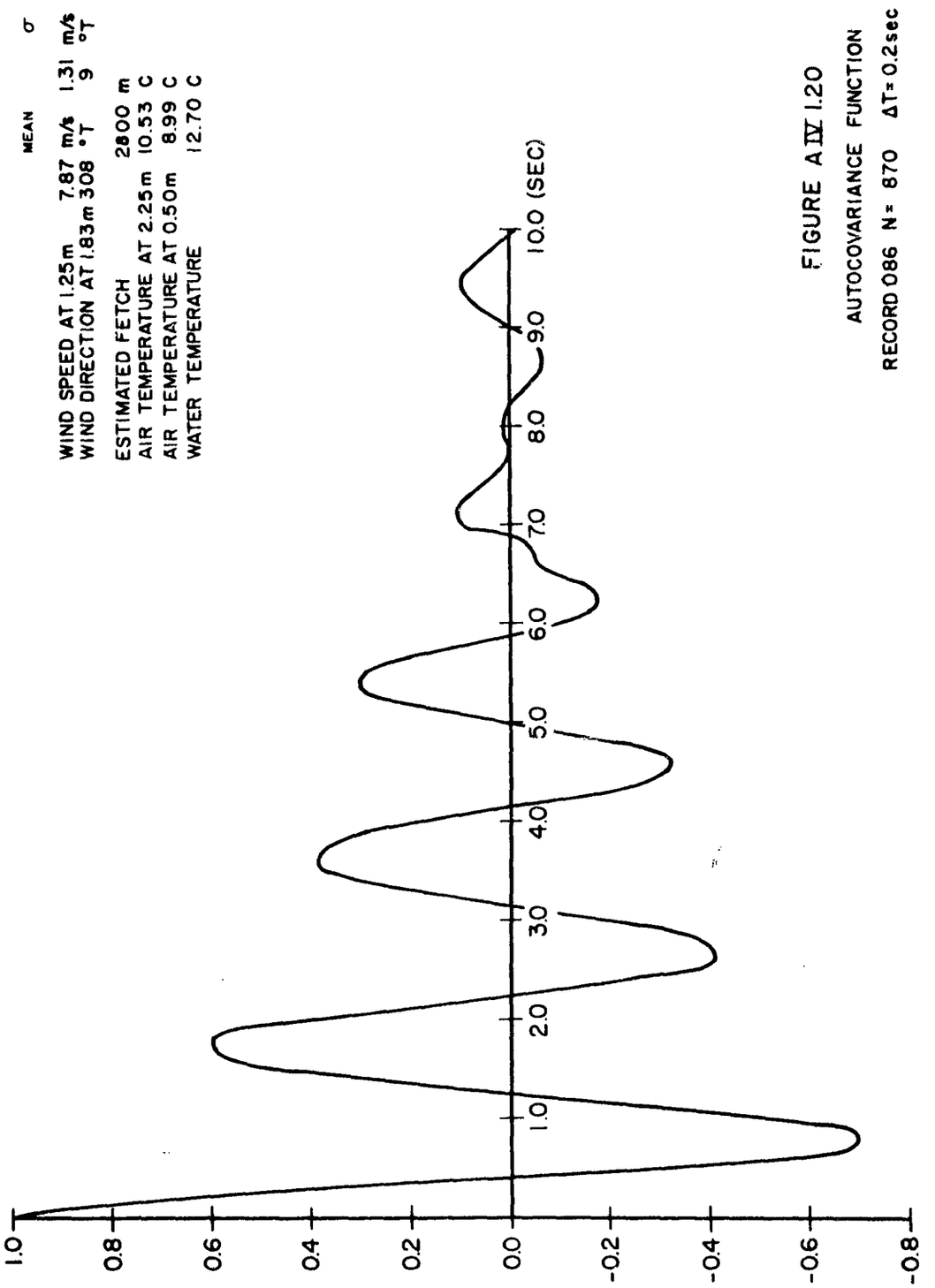
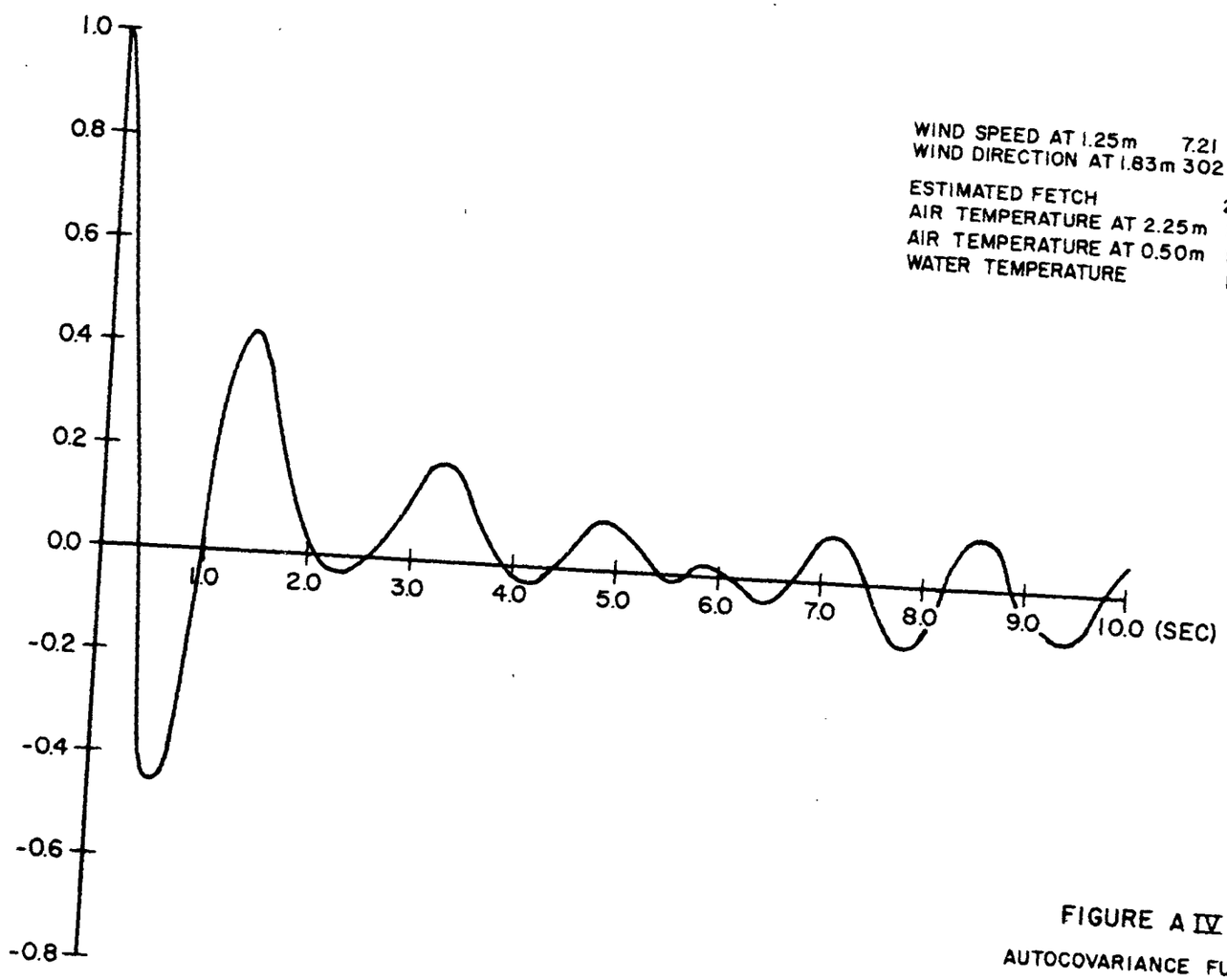


FIGURE A IV 1.20

AUTOCOVARIANCE FUNCTION

RECORD 086 N= 870 ΔT= 0.2sec

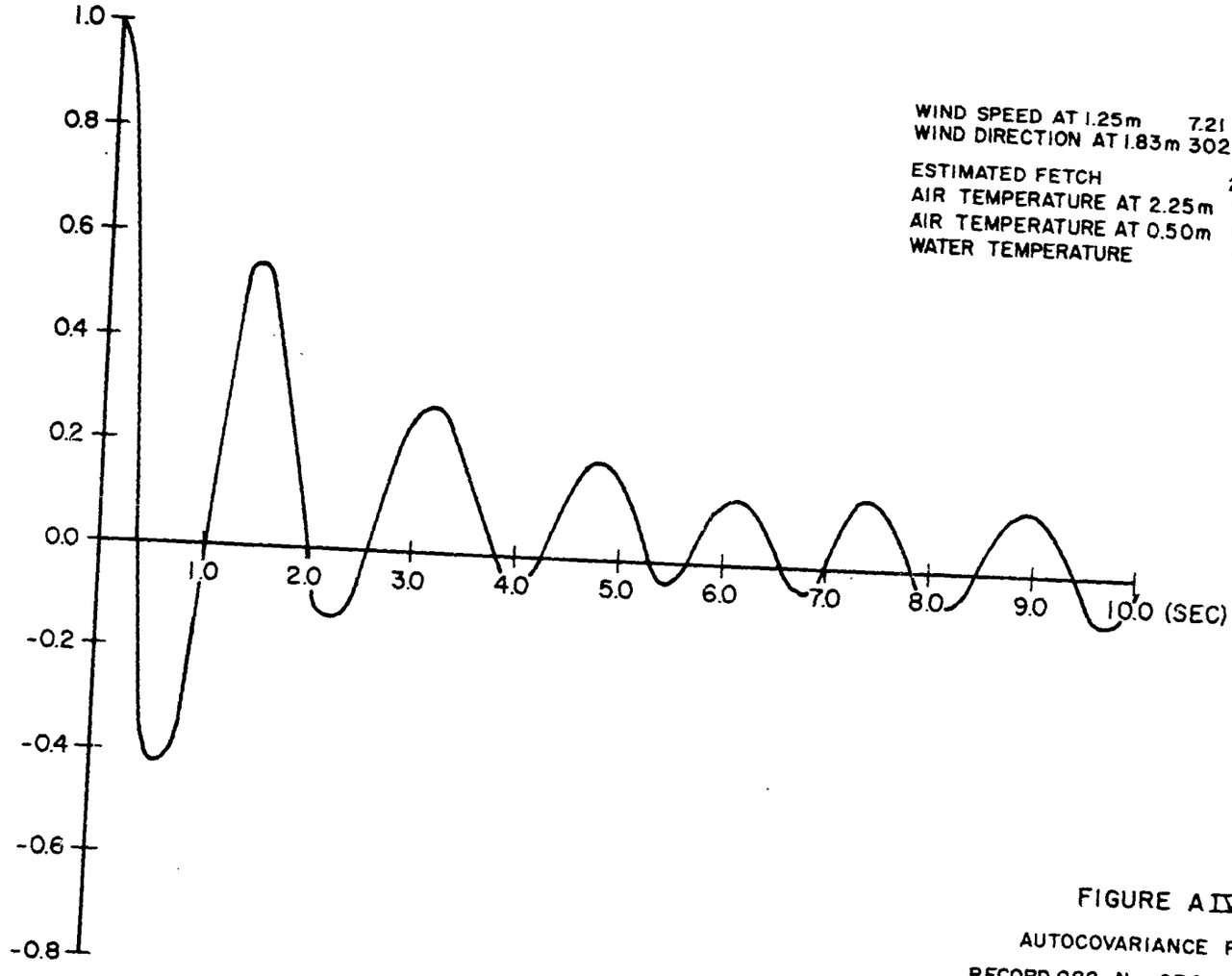


	MEAN		σ	
WIND SPEED AT 1.25m	7.21	m/s	1.45	m/s
WIND DIRECTION AT 1.83m	302	°T	8	°T
ESTIMATED FETCH	2300	m		
AIR TEMPERATURE AT 2.25m	10.89	C		
AIR TEMPERATURE AT 0.50m	10.56	C		
WATER TEMPERATURE	12.79	C		

FIGURE A IV 1.21

AUTOCOVARIANCE FUNCTION

RECORD 087 N= 750 ΔT= 0.2sec

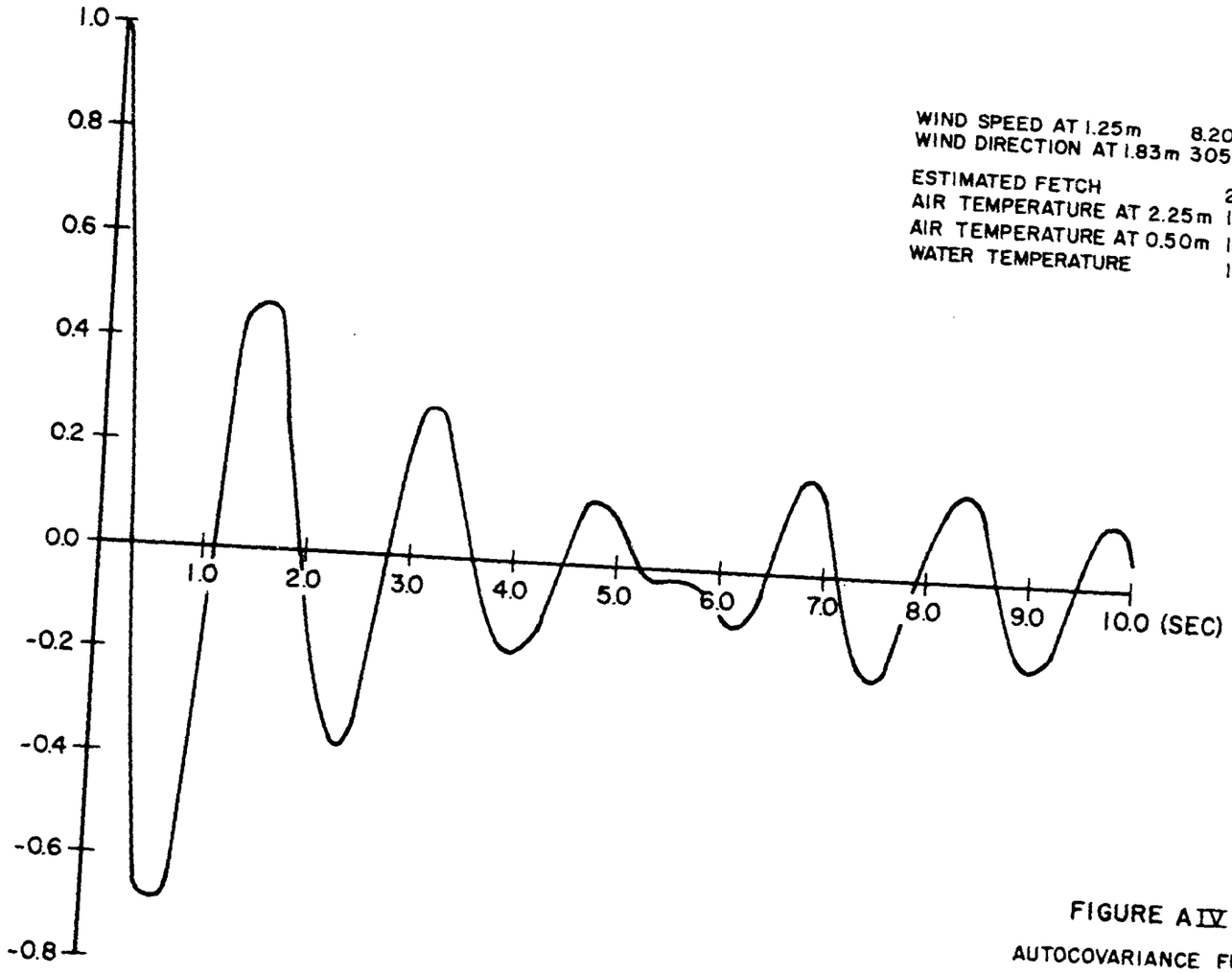


	MEAN		σ	
WIND SPEED AT 1.25m	7.21	m/s	1.45	m/s
WIND DIRECTION AT 1.83m	302	°T	8	°T
ESTIMATED FETCH	2300	m		
AIR TEMPERATURE AT 2.25m	10.89	C		
AIR TEMPERATURE AT 0.50m	10.56	C		
WATER TEMPERATURE	12.79	C		

FIGURE A IV 1.22

AUTOCOVARIANCE FUNCTION

RECORD 088 N= 870 ΔT= 0.2sec

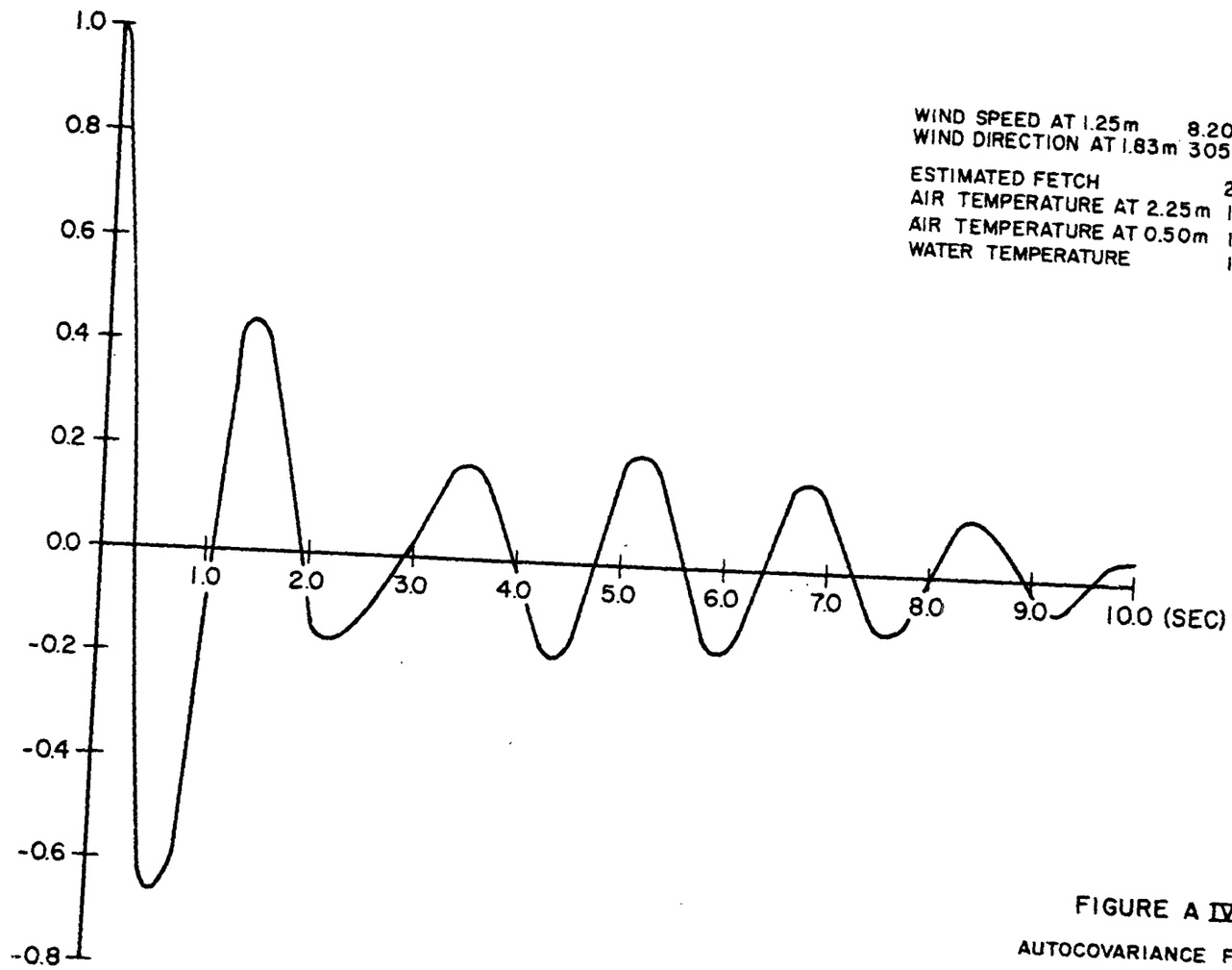


	MEAN	σ
WIND SPEED AT 1.25m	8.20 m/s	1.00 m/s
WIND DIRECTION AT 1.83m	305 °T	6 °T
ESTIMATED FETCH	2500 m	
AIR TEMPERATURE AT 2.25m	12.02 C	
AIR TEMPERATURE AT 0.50m	11.86 C	
WATER TEMPERATURE	12.87 C	

FIGURE A IV 1.23

AUTOCOVARIANCE FUNCTION

RECORD 093 N= 750 ΔT= 0.2sec



	MEAN	σ
WIND SPEED AT 1.25m	8.20 m/s	1.00 m/s
WIND DIRECTION AT 1.83m	305 °T	6 °T
ESTIMATED FETCH	2500 m	
AIR TEMPERATURE AT 2.25m	12.02 C	
AIR TEMPERATURE AT 0.50m	11.86 C	
WATER TEMPERATURE	12.87 C	

FIGURE A IV 1.24

AUTOCOVARIANCE FUNCTION

RECORD 094 N= 860 ΔT= 0.2sec

TABLE A IV 1.01

AUTOCOVARIANCE FUNCTION

RECORD 009

N = 1549 ΔT = 0.1 sec

Lag (sec)	Value	Lag (sec)	Value
0.0	1.000		
0.1	.901	2.6	-.244
0.2	.635	2.7	-.222
0.3	.288	2.8	-.182
0.4	-.070	2.9	-.130
0.5	-.377	3.0	-.072
0.6	-.594	3.1	-.013
0.7	-.708	3.2	.044
0.8	-.714	3.3	.096
0.9	-.620	3.4	.136
1.0	.452	3.5	.160
1.1	-.243	3.6	.167
1.2	-.023	3.7	.155
1.3	.176	3.8	.129
1.4	.329	3.9	.094
1.5	.421	4.0	.055
1.6	.451	4.1	
1.7	.426	4.2	
1.8	.358	4.3	
1.9	.264	4.4	
2.0	.154	4.5	
2.1	.041	4.6	
2.2	-.065	4.7	
2.3	-.152	4.8	
2.4	-.213	4.9	
2.5	-.242	5.0	

TABLE A IV 1.02

AUTOCOVARIANCE FUNCTION

RECORD 010

N = 1406 ΔT = 0.1 sec

Lag (sec)	Value	Lag (sec)	Value
0.0	1.000		
0.1	.892	2.6	-.303
0.2	.627	2.7	-.294
0.3	.277	2.8	-.254
0.4	-.077	2.9	-.190
0.5	-.378	3.0	-.111
0.6	-.588	3.1	-.028
0.7	-.696	3.2	.051
0.8	-.696	3.3	.120
0.9	-.608	3.4	.170
1.0	-.457	3.5	.200
1.1	-.268	3.6	.208
1.2	-.069	3.7	.199
1.3	.118	3.8	.172
1.4	.272	3.9	.131
1.5	.379	4.0	.077
1.6	.434	4.1	
1.7	.437	4.2	
1.8	.395	4.3	
1.9	.317	4.4	
2.0	.213	4.5	
2.1	.095	4.6	
2.2	-.023	4.7	
2.3	-.129	4.8	
2.4	-.216	4.9	
2.5	-.276	5.0	

	MEAN	σ
WIND SPEED AT 1.04 m	4.92 m/s	0.58 m/s
WIND DIRECTION AT 1.34 m	286 °T	8 °T

ESTIMATED FETCH	2100	m
AIR TEMPERATURE	27.45	C
WATER TEMPERATURE	26.18	C

TABLE A IV 1.03

AUTOCOVARIANCE FUNCTION

RECORD 011

N = 1509 ΔT = 0.1 sec

Lag (sec)	Value	Lag (sec)	Value
0.0	1.000		
0.1	.910	2.6	-.050
0.2	.686	2.7	-.012
0.3	.396	2.8	.028
0.4	.094	2.9	.072
0.5	-.177	3.0	.116
0.6	-.389	3.1	.154
0.7	-.527	3.2	.178
0.8	-.588	3.3	.184
0.9	-.580	3.4	.169
1.0	-.510	3.5	.135
1.1	-.400	3.6	.085
1.2	-.263	3.7	.023
1.3	-.117	3.8	-.042
1.4	.019	3.9	-.100
1.5	.128	4.0	-.145
1.6	.197	4.1	-.173
1.7	.220	4.2	-.182
1.8	.199	4.3	-.173
1.9	.146	4.4	-.149
2.0	.078	4.5	-.115
2.1	.009	4.6	-.074
2.2	-.046	4.7	-.028
2.3	-.080	4.8	.016
2.4	-.089	4.9	.054
2.5	-.078	5.0	.082

TABLE A IV 1.04

AUTOCOVARIANCE FUNCTION

RECORD 012

N = 1337 ΔT = 0.1 sec

Lag (sec)	Value	Lag (sec)	Value
0.0	1.000		
0.1	.886	2.6	-.336
0.2	.632	2.7	-.288
0.3	.303	2.8	-.210
0.4	-.034	2.9	-.120
0.5	-.330	3.0	-.030
0.6	-.554	3.1	.049
0.7	-.679	3.2	.111
0.8	-.705	3.3	.157
0.9	-.642	3.4	.186
1.0	-.505	3.5	.195
1.1	-.319	3.6	.182
1.2	-.109	3.7	.153
1.3	.100	3.8	.113
1.4	.286	3.9	.066
1.5	.428	4.0	.017
1.6	.511	4.1	-.028
1.7	.523	4.2	-.062
1.8	.468	4.3	-.085
1.9	.360	4.4	-.100
2.0	.215	4.5	-.109
2.1	.054	4.6	-.113
2.2	-.100	4.7	-.115
2.3	-.224	4.8	-.109
2.4	-.308	4.9	-.095
2.5	-.345	5.0	-.069

	MEAN	σ
WIND SPEED AT 1.22 m	5.09 m/s	0.58 m/s
WIND DIRECTION AT 1.52 m	288 °T	9 °T

ESTIMATED FETCH	2200	m
AIR TEMPERATURE	28.98	C
WATER TEMPERATURE	26.62	C

TABLE A IV 1.05

AUTOCOVARIANCE FUNCTION

RECORD 017

N = 1473 ΔT = 0.1 sec

Lag (sec)	Value	Lag (sec)	Value
0.0	1.000		
0.1	.822	2.6	.168
0.2	.431	2.7	.222
0.3	-.011	2.8	.230
0.4	-.375	2.9	.189
0.5	-.594	3.0	.115
0.6	-.654	3.1	.035
0.7	-.573	3.2	-.037
0.8	-.393	3.3	-.092
0.9	-.162	3.4	-.131
1.0	.068	3.5	-.150
1.1	.256	3.6	-.144
1.2	.372	3.7	-.108
1.3	.405	3.8	-.047
1.4	.360	3.9	.030
1.5	.257	4.0	.089
1.6	.122	4.1	
1.7	-.010	4.2	
1.8	-.130	4.3	
1.9	-.222	4.4	
2.0	-.270	4.5	
2.1	-.265	4.6	
2.2	-.210	4.7	
2.3	-.127	4.8	
2.4	-.025	4.9	
2.5	.078	5.0	

TABLE A IV 1.06

AUTOCOVARIANCE FUNCTION

RECORD 018

N = 1411 ΔT = 0.1 sec

Lag (sec)	Value	Lag (sec)	Value
0.0	1.000		
0.1	.851	2.6	.161
0.2	.495	2.7	.155
0.3	.080	2.8	.120
0.4	-.278	2.9	.075
0.5	-.509	3.0	.028
0.6	-.592	3.1	-.014
0.7	-.542	3.2	-.045
0.8	-.402	3.3	-.064
0.9	-.219	3.4	-.072
1.0	-.031	3.5	-.067
1.1	.127	3.6	-.042
1.2	.231	3.7	-.005
1.3	.268	3.8	.030
1.4	.233	3.9	.049
1.5	.147	4.0	.047
1.6	.033	4.1	
1.7	-.075	4.2	
1.8	-.151	4.3	
1.9	-.184	4.4	
2.0	-.173	4.5	
2.1	-.125	4.6	
2.2	-.056	4.7	
2.3	.018	4.8	
2.4	.085	4.9	
2.5	.135	5.0	

	MEAN	σ
WIND SPEED AT 1.22 m	3.88 m/s	0.45 m/s
WIND DIRECTION AT 1.52 m	277 °T	10 °T
ESTIMATED FETCH	1700	m
AIR TEMPERATURE	29.51	C
WATER TEMPERATURE	27.55	C

TABLE A IV 1.07

AUTOCOVARIANCE FUNCTION

RECORD 027

N = 1527 ΔT = 0.1 sec

Lag (sec)	Value	Lag (sec)	Value
0.0	1.000		
0.1	.850	2.6	-.044
0.2	.501	2.7	.080
0.3	.086	2.8	.187
0.4	-.290	2.9	.261
0.5	-.562	3.0	.289
0.6	-.697	3.1	.269
0.7	-.695	3.2	.204
0.8	-.571	3.3	.109
0.9	-.361	3.4	.006
1.0	-.109	3.5	-.088
1.1	.132	3.6	-.166
1.2	.319	3.7	-.215
1.3	.432	3.8	-.228
1.4	.466	3.9	-.200
1.5	.429	4.0	-.136
1.6	.336	4.1	
1.7	.205	4.2	
1.8	.057	4.3	
1.9	-.089	4.4	
2.0	-.211	4.5	
2.1	-.296	4.6	
2.2	-.337	4.7	
2.3	-.328	4.8	
2.4	-.269	4.9	
2.5	-.168	5.0	

TABLE A IV 1.08

AUTOCOVARIANCE FUNCTION

RECORD 028

N = 1574 ΔT = 0.1 sec

Lag (sec)	Value	Lag (sec)	Value
0.0	1.000		
0.1	.845	2.6	-.029
0.2	.479	2.7	.083
0.3	.052	2.8	.183
0.4	-.328	2.9	.254
0.5	-.590	3.0	.277
0.6	-.699	3.1	.254
0.7	-.657	3.2	.181
0.8	-.497	3.3	.080
0.9	-.272	3.4	-.026
1.0	-.031	3.5	-.114
1.1	.178	3.6	-.172
1.2	.331	3.7	-.193
1.3	.413	3.8	-.178
1.4	.426	3.9	-.135
1.5	.378	4.0	-.078
1.6	.283	4.1	
1.7	.158	4.2	
1.8	.023	4.3	
1.9	-.103	4.4	
2.0	-.206	4.5	
2.1	-.272	4.6	
2.2	-.296	4.7	
2.3	-.277	4.8	
2.4	-.220	4.9	
2.5	-.134	5.0	

	MEAN		σ	
WIND SPEED AT 1.35 m	4.64	m/s	0.56	m/s
WIND DIRECTION AT 1.65 m	314	°T	7	°T
ESTIMATED FETCH	2300	m		
AIR TEMPERATURE	24.64	C		
WATER TEMPERATURE	26.38	C		

TABLE A IV 1.09

AUTOCOVARIANCE FUNCTION

RECORD 067

N = 750 ΔT = 0.2 sec

Lag (sec)	Value	Lag (sec)	Value
0.0	1.000		
0.2	.541	5.2	-.132
0.4	-.240	5.4	-.184
0.6	-.648	5.6	-.131
0.8	-.523	5.8	.011
1.0	-.080	6.0	.146
1.2	.364	6.2	.178
1.4	.522	6.4	.088
1.6	.365	6.6	-.078
1.8	.066	6.8	-.219
2.0	-.196	7.0	-.216
2.2	-.299	7.2	-.040
2.4	-.224	7.4	.155
2.6	-.014	7.6	.189
2.8	.205	7.8	.068
3.0	.294	8.0	-.091
3.2	.206	8.2	-.176
3.4	.032	8.4	-.146
3.6	-.130	8.6	-.044
3.8	-.202	8.8	.052
4.0	-.151	9.0	.108
4.2	-.005	9.2	.080
4.4	.135	9.4	-.025
4.6	.196	9.6	-.125
4.8	.133	9.8	-.134
5.0	-.006	10.0	-.058

TABLE A IV 1.10

AUTOCOVARIANCE FUNCTION

RECORD 068

N = 850 ΔT = 0.2 sec

Lag (sec)	Value	Lag (sec)	Value
0.0	1.000		
0.2	.555	5.2	.028
0.4	-.207	5.4	-.094
0.6	-.652	5.6	-.128
0.8	-.562	5.8	-.090
1.0	-.104	6.0	-.044
1.2	.347	6.2	-.003
1.4	.490	6.4	.053
1.6	.342	6.6	.090
1.8	.071	6.8	.091
2.0	-.145	7.0	.002
2.2	-.217	7.2	-.106
2.4	-.167	7.4	-.145
2.6	-.070	7.6	-.094
2.8	.036	7.8	.010
3.0	.143	8.0	.092
3.2	.221	8.2	.089
3.4	.186	8.4	.014
3.6	.042	8.6	-.074
3.8	-.101	8.8	-.111
4.0	-.184	9.0	-.063
4.2	-.165	9.2	.024
4.4	-.040	9.4	.062
4.6	.109	9.6	.018
4.8	.180	9.8	-.064
5.0	.144	10.0	-.103

	MEAN		σ	
WIND SPEED AT 1.25m	6.18	m/s	1.09	m/s
WIND DIRECTION AT 1.83m	307	°T	7	°T
ESTIMATED FETCH	2700	m		
AIR TEMPERATURE AT 2.25m	9.25	C		
AIR TEMPERATURE AT 0.50m	9.88	C		
WATER TEMPERATURE	12.46	C		

TABLE A IV 1.11

AUTOCOVARIANCE FUNCTION

RECORD 069

N = 750 ΔT = 0.2 sec

Lag (sec)	Value	Lag (sec)	Value
0.0	1.000		
0.2	.627	5.2	.160
0.4	-.064	5.4	.121
0.6	-.550	5.6	.052
0.8	-.637	5.8	.004
1.0	-.401	6.0	-.020
1.2	-.033	6.2	-.040
1.4	.281	6.4	-.061
1.6	.445	6.6	-.059
1.8	.418	6.8	-.021
2.0	.241	7.0	.042
2.2	.012	7.2	.083
2.4	-.193	7.4	.059
2.6	-.310	7.6	.006
2.8	-.287	7.8	-.027
3.0	-.123	8.0	-.038
3.2	.098	8.2	-.028
3.4	.253	8.4	.001
3.6	.287	8.6	.019
3.8	.223	8.8	.020
4.0	.068	9.0	.018
4.2	-.127	9.2	.012
4.4	-.238	9.4	-.011
4.6	-.196	9.6	-.047
4.8	.051	9.8	-.052
5.0	.098	10.0	.001

TABLE A IV 1.12

AUTOCOVARIANCE FUNCTION

RECORD 070

N = 880 ΔT = 0.2 sec

Lag (sec)	Value	Lag (sec)	Value
0.0	1.000		
0.2	.624	5.2	.031
0.4	-.067	5.4	.054
0.6	-.554	5.6	.087
0.8	-.636	5.8	.116
1.0	-.382	6.0	.096
1.2	.004	6.2	.024
1.4	.324	6.4	-.064
1.6	.463	6.6	-.109
1.8	.399	6.8	-.089
2.0	.187	7.0	-.043
2.2	-.067	7.2	.006
2.4	-.229	7.4	.063
2.6	-.250	7.6	.113
2.8	-.155	7.8	.123
3.0	-.017	8.0	.072
3.2	.102	8.2	-.012
3.4	.154	8.4	-.079
3.6	.166	8.6	-.103
3.8	.151	8.8	-.099
4.0	.080	9.0	-.054
4.2	-.020	9.2	.031
4.4	-.099	9.4	.128
4.6	-.113	9.6	.163
4.8	-.071	9.8	.095
5.0	-.011	10.0	-.023

	MEAN	σ
WIND SPEED AT 1.25m	5.61 m/s	0.98 m/s
WIND DIRECTION AT 1.83m	312 °T	9 °T
ESTIMATED FETCH	3000 m	
AIR TEMPERATURE AT 2.25m	9.78 C	
AIR TEMPERATURE AT 0.50m	9.52 C	
WATER TEMPERATURE	12.45 C	

TABLE A IV 1.13

AUTOCOVARIANCE FUNCTION

RECORD 075

N = 750 ΔT = 0.2 sec

Lag (sec)	Value	Lag (sec)	Value
0.0	1.000		
0.2	.670	5.2	.197
0.4	.037	5.4	.217
0.6	-.482	5.6	.138
0.8	-.670	5.8	-.002
1.0	-.518	6.0	-.133
1.2	-.147	6.2	-.171
1.4	.249	6.4	-.101
1.6	.517	6.6	.034
1.8	.559	6.8	.165
2.0	.366	7.0	.224
2.2	.043	7.2	.179
2.4	-.239	7.4	.048
2.6	-.353	7.6	-.088
2.8	-.287	7.8	-.160
3.0	-.105	8.0	-.144
3.2	.107	8.2	-.053
3.4	.277	8.4	.069
3.6	.331	8.6	.153
3.8	.242	8.8	.179
4.0	.053	9.0	.152
4.2	-.126	9.2	.071
4.4	-.195	9.4	-.036
4.6	-.152	9.6	-.110
4.8	-.042	9.8	-.127
5.0	.093	10.0	-.099

TABLE A IV 1.14

AUTOCOVARIANCE FUNCTION

RECORD 076

N = 850 ΔT = 0.2 sec

Lag (sec)	Value	Lag (sec)	Value
0.0	1.000		
0.2	.632	5.2	.183
0.4	-.046	5.4	.196
0.6	-.525	5.6	.108
0.8	-.655	5.8	-.002
1.0	-.492	6.0	-.069
1.2	-.141	6.2	-.097
1.4	.238	6.4	-.097
1.6	.462	6.6	-.064
1.8	.468	6.8	-.009
2.0	.298	7.0	.055
2.2	.044	7.2	.108
2.4	-.201	7.4	.126
2.6	-.351	7.6	.096
2.8	-.341	7.8	.006
3.0	-.183	8.0	-.106
3.2	.043	8.2	-.158
3.4	.251	8.4	-.108
3.6	.351	8.6	-.001
3.8	.281	8.8	.101
4.0	.067	9.0	.152
4.2	-.162	9.2	.117
4.4	-.265	9.4	.028
4.6	-.219	9.6	-.058
4.8	-.089	9.8	-.103
5.0	.067	10.0	-.098

	MEAN		σ	
WIND SPEED AT 1.25m	6.75	m/s	1.09	m/s
WIND DIRECTION AT 1.83m	325	°T	8	°T
ESTIMATED FETCH	3000	m		
AIR TEMPERATURE AT 2.25m	9.92	C		
AIR TEMPERATURE AT 0.50m	9.86	C		
WATER TEMPERATURE	12.52	C		

TABLE A IV 1.15

AUTOCOVARIANCE FUNCTION

RECORD 081

N = 750 ΔT = 0.2 sec

Lag (sec)	Value	Lag (sec)	Value
0.0	1.000		
0.2	.586	5.2	.183
0.4	-.076	5.4	.062
0.6	-.427	5.6	-.024
0.8	-.408	5.8	-.014
1.0	-.123	6.0	.022
1.2	.253	6.2	.071
1.4	.513	6.4	.138
1.6	.524	6.6	.177
1.8	.308	6.8	.165
2.0	.024	7.0	.107
2.2	-.176	7.2	.024
2.4	-.196	7.4	-.023
2.6	-.042	7.6	.008
2.8	.167	7.8	.097
3.0	.289	8.0	.155
3.2	.286	8.2	.122
3.4	.211	8.4	.091
3.6	.126	8.6	.085
3.8	.018	8.8	.075
4.0	-.068	9.0	.047
4.2	-.042	9.2	.029
4.4	.047	9.4	.050
4.6	.129	9.6	.071
4.8	.188	9.8	.101
5.0	.222	10.0	.137

TABLE A IV 1.16

AUTOCOVARIANCE FUNCTION

RECORD 082

N = 888 ΔT = 0.2 sec

Lag (sec)	Value	Lag (sec)	Value
0.0	1.000		
0.2	.564	5.2	.040
0.4	-.147	5.4	-.061
0.6	-.523	5.6	-.067
0.8	-.444	5.8	.012
1.0	-.070	6.0	.111
1.2	.334	6.2	.153
1.4	.523	6.4	.138
1.6	.438	6.6	.099
1.8	.185	6.8	.044
2.0	-.071	7.0	.003
2.2	-.204	7.2	-.002
2.4	-.174	7.4	.023
2.6	.001	7.6	.061
2.8	.201	7.8	.095
3.0	.290	8.0	.107
3.2	.253	8.2	.108
3.4	.141	8.4	.084
3.6	.032	8.6	.024
3.8	-.042	8.8	-.020
4.0	-.070	9.0	-.018
4.2	-.032	9.2	.041
4.4	.073	9.4	.115
4.6	.184	9.6	.146
4.8	.226	9.8	.108
5.0	.173	10.0	.034

	MEAN	σ
WIND SPEED AT 1.25m	6.78 m/s	1.17 m/s
WIND DIRECTION AT 1.83m	326 °T	8 °T

ESTIMATED FETCH	3000 m
AIR TEMPERATURE AT 2.25m	10.42 C
AIR TEMPERATURE AT 0.50m	10.46 C
WATER TEMPERATURE	12.69 C

TABLE A IV 1.17

AUTOCOVARIANCE FUNCTION

RECORD 083

N = 750 ΔT = 0.2 sec

Lag (sec)	Value	Lag (sec)	Value
0.0	1.000		
0.2	.694	5.2	.445
0.4	.108	5.4	.376
0.6	-.343	5.6	.192
0.8	-.457	5.8	-.010
1.0	-.248	6.0	-.119
1.2	.118	6.2	-.093
1.4	.440	6.4	.030
1.6	.584	6.6	.197
1.8	.544	6.8	.327
2.0	.352	7.0	.359
2.2	.097	7.2	.281
2.4	-.121	7.4	.127
2.6	-.218	7.6	-.020
2.8	-.150	7.8	-.085
3.0	.067	8.0	-.033
3.2	.328	8.2	.103
3.4	.499	8.4	.240
3.6	.488	8.6	.295
3.8	.305	8.8	.261
4.0	.056	9.0	.179
4.2	-.131	9.2	.083
4.4	-.178	9.4	.022
4.6	-.069	9.6	.018
4.8	.145	9.8	.050
5.0	.350	10.0	.104

TABLE A IV 1.18

AUTOCOVARIANCE FUNCTION

RECORD 084

N = 566 ΔT = 0.2 sec

Lag (sec)	Value	Lag (sec)	Value
0.0	1.000		
0.2	.632	5.2	-.067
0.4	-.037	5.4	.011
0.6	-.490	5.6	.119
0.8	-.507	5.8	.204
1.0	-.192	6.0	.221
1.2	.184	6.2	.171
1.4	.413	6.4	.035
1.6	.435	6.6	-.114
1.8	.296	6.8	-.170
2.0	.101	7.0	-.102
2.2	-.045	7.2	.056
2.4	-.083	7.4	.198
2.6	-.038	7.6	.233
2.8	.042	7.8	.159
3.0	.112	8.0	.035
3.2	.120	8.2	-.053
3.4	.093	8.4	-.066
3.6	.075	8.6	-.024
3.8	.088	8.8	.029
4.0	.115	9.0	.045
4.2	.140	9.2	.035
4.4	.133	9.4	.047
4.6	.077	9.6	.081
4.8	-.017	9.8	.102
5.0	-.075	10.0	.084

	MEAN		σ	
WIND SPEED AT 1.25m	7.77	m/s	1.16	m/s
WIND DIRECTION AT 1.83m	314	°T	12	°T
ESTIMATED FETCH	2700	m		
AIR TEMPERATURE AT 2.25m	10.76	C		
AIR TEMPERATURE AT 0.50m	10.61	C		
WATER TEMPERATURE	12.72	C		

TABLE A IV 1.19

AUTOCOVARIANCE FUNCTION

RECORD 085

N = 750 ΔT = 0.2 sec

Lag (sec)	Value	Lag (sec)	Value
0.0	1.000		
0.2	.688	5.2	.245
0.4	.085	5.4	.273
0.6	-.386	5.6	.225
0.8	-.531	5.8	.134
1.0	-.357	6.0	.045
1.2	-.000	6.2	-.025
1.4	.362	6.4	-.051
1.6	.579	6.6	-.016
1.8	.568	6.8	.060
2.0	.358	7.0	.137
2.2	.075	7.2	.189
2.4	-.153	7.4	.207
2.6	-.235	7.6	.182
2.8	-.181	7.8	.107
3.0	-.025	8.0	.003
3.2	.183	8.2	-.063
3.4	.351	8.4	-.058
3.6	.406	8.6	.011
3.8	.321	8.8	.112
4.0	.142	9.0	.192
4.2	-.039	9.2	.216
4.4	-.139	9.4	.185
4.6	-.125	9.6	.105
4.8	-.015	9.8	-.001
5.0	.131	10.0	-.077

TABLE A IV 1.20

AUTOCOVARIANCE FUNCTION

RECORD 086

N = 870 ΔT = 0.2 sec

Lag (sec)	Value	Lag (sec)	Value
0.0	1.000		
0.2	.687	5.2	.218
0.4	.054	5.4	.303
0.6	-.481	5.6	.236
0.8	-.700	5.8	.064
1.0	-.566	6.0	-.098
1.2	-.179	6.2	-.173
1.4	.263	6.4	-.148
1.6	.561	6.6	-.059
1.8	.605	6.8	-.036
2.0	.405	7.0	.101
2.2	.071	7.2	.101
2.4	-.241	7.4	.054
2.6	-.414	7.6	.015
2.8	-.385	7.8	.007
3.0	-.182	8.0	.012
3.2	.085	8.2	.001
3.4	.301	8.4	-.036
3.6	.390	8.6	-.067
3.8	.339	8.8	-.058
4.0	.163	9.0	-.004
4.2	-.075	9.2	.063
4.4	-.279	9.4	.099
4.6	-.327	9.6	.079
4.8	-.196	9.8	.025
5.0	.026	10.0	-.022

	MEAN		σ	
WIND SPEED AT 1.25m	7.87	m/s	1.31	m/s
WIND DIRECTION AT 1.83m	308	°T	9	°T
ESTIMATED FETCH	2800	m		
AIR TEMPERATURE AT 2.25m	10.53	C		
AIR TEMPERATURE AT 0.50m	8.99	C		
WATER TEMPERATURE	12.70	C		

TABLE A IV 1.21

AUTOCOVARIANCE FUNCTION

RECORD 087

N = 750 ΔT = 0.2 sec

Lag (sec)	Value	Lag (sec)	Value
0.0	1.000		
0.2	.550	5.2	.048
0.4	-.139	5.4	.005
0.6	-.447	5.6	-.005
0.8	-.331	5.8	.018
1.0	.029	6.0	.012
1.2	.346	6.2	-.015
1.4	.434	6.4	-.041
1.6	.322	6.6	-.027
1.8	.144	6.8	.025
2.0	.022	7.0	.082
2.2	-.025	7.2	.086
2.4	-.030	7.4	.017
2.6	.006	7.6	-.075
2.8	.055	7.8	-.125
3.0	.116	8.0	-.096
3.2	.183	8.2	.003
3.4	.179	8.4	.090
3.6	.102	8.6	.097
3.8	.020	8.8	.024
4.0	-.024	9.0	-.054
4.2	-.033	9.2	-.083
4.4	-.001	9.4	-.099
4.6	.047	9.6	-.067
4.8	.091	9.8	.016
5.0	.087	10.0	.059

TABLE A IV 1.22

AUTOCOVARIANCE FUNCTION

RECORD 088

N = 870 ΔT = 0.2 sec

Lag (sec)	Value	Lag (sec)	Value
0.0	1.000		
0.2	.593	5.2	.041
0.4	-.069	5.4	-.047
0.6	-.430	5.6	-.027
0.8	-.385	5.8	.064
1.0	-.073	6.0	.115
1.2	.308	6.2	.118
1.4	.534	6.4	.061
1.6	.489	6.6	-.027
1.8	.259	6.8	-.058
2.0	-.000	7.0	.012
2.2	-.139	7.2	.109
2.4	-.119	7.4	.133
2.6	.005	7.6	.083
2.8	.151	7.8	.001
3.0	.253	8.0	-.061
3.2	.274	8.2	-.068
3.4	.200	8.4	-.013
3.6	.098	8.6	.066
3.8	-.002	8.8	.113
4.0	-.059	9.0	.115
4.2	-.025	9.2	.066
4.4	.074	9.4	-.017
4.6	.156	9.6	-.089
4.8	.185	9.8	-.092
5.0	.143	10.0	-.016

	MEAN		σ	
WIND SPEED AT 1.25m	7.21	m/s	1.45	m/s
WIND DIRECTION AT 1.83m	302	°T	8	°T

ESTIMATED FETCH	2300 m
AIR TEMPERATURE AT 2.25m	10.89 C
AIR TEMPERATURE AT 0.50m	10.56 C
WATER TEMPERATURE	12.79 C

TABLE A IV 1.23

AUTOCOVARIANCE FUNCTION

RECORD 093

N = 750 ΔT = 0.2 sec

Lag (sec)	Value	Lag (sec)	Value
0.0	1.000		
0.2	.564	5.2	.024
0.4	-.181	5.4	-.027
0.6	-.663	5.6	-.019
0.8	-.669	5.8	-.028
1.0	-.299	6.0	-.077
1.2	.160	6.2	-.102
1.4	.461	6.4	-.041
1.6	.476	6.6	.096
1.8	.261	6.8	.187
2.0	-.041	7.0	.133
2.2	-.287	7.2	-.031
2.4	-.370	7.4	-.179
2.6	-.247	7.6	-.185
2.8	.002	7.8	-.067
3.0	.228	8.0	.060
3.2	.286	8.2	.150
3.4	.185	8.4	.170
3.6	.014	8.6	.069
3.8	-.125	8.8	-.082
4.0	-.174	9.0	-.165
4.2	-.142	9.2	-.138
4.4	-.041	9.4	-.026
4.6	.072	9.6	.097
4.8	.125	9.8	.123
5.0	.099	10.0	.056

TABLE A IV 1.24

AUTOCOVARIANCE FUNCTION

RECORD 094

N = 860 ΔT = 0.2 sec

Lag (sec)	Value	Lag (sec)	Value
0.0	1.000		
0.2	.573	5.2	.217
0.4	-.187	5.4	.156
0.6	-.650	5.6	.013
0.8	-.605	5.8	-.117
1.0	-.207	6.0	-.166
1.2	.229	6.2	-.113
1.4	.442	6.4	.004
1.6	.383	6.6	.123
1.8	.159	6.8	.173
2.0	-.065	7.0	.131
2.2	-.165	7.2	.031
2.4	-.153	7.4	-.066
2.6	-.095	7.6	-.115
2.8	-.043	7.8	-.086
3.0	.017	8.0	-.002
3.2	.100	8.2	.078
3.4	.171	8.4	.112
3.6	.176	8.6	.093
3.8	.105	8.8	.039
4.0	-.017	9.0	-.028
4.2	-.133	9.2	-.063
4.4	-.182	9.4	-.040
4.6	-.116	9.6	.005
4.8	.031	9.8	.038
5.0	.166	10.0	.040

	MEAN	σ
WIND SPEED AT 1.25m	8.20 m/s	1.00 m/s
WIND DIRECTION AT 1.83m	305 °T	6 °T
ESTIMATED FETCH	2500 m	
AIR TEMPERATURE AT 2.25m	12.02 C	
AIR TEMPERATURE AT 0.50m	11.86 C	
WATER TEMPERATURE	12.87 C	

Low-Resolution Spectra of the Water Surface

Figures AIV 2.01.0 to AIV 2.24.0 on pages AIV-40 to AIV-63 show the spectrum of each wave record on rectangular coordinates. The 10% and 90% confidence limits are also showed whenever it has been possible to do so. The term "low resolution" means one power estimate for each 0.1 cps as opposed to the "high-resolution" analyses which show one power estimate for each 0.05 cps. Each estimate is an average over a frequency band 0.2 cps wide with the exception of the end points, as explained in section 6.01.

Figures AIV 2.01.1 to AIV 2.24.1 on pages AIV-64 to AIV-87 show the same spectra over the band from 0.7 to 2.1 cps on a logarithm versus logarithm scale.

Tables AIV 2.01 to AIV 2.24 on pages AIV-88 to AIV-111 record the values from which the rectangular and log-log plots were made. They also contain the 10%, 50%, and 90% confidence limits.

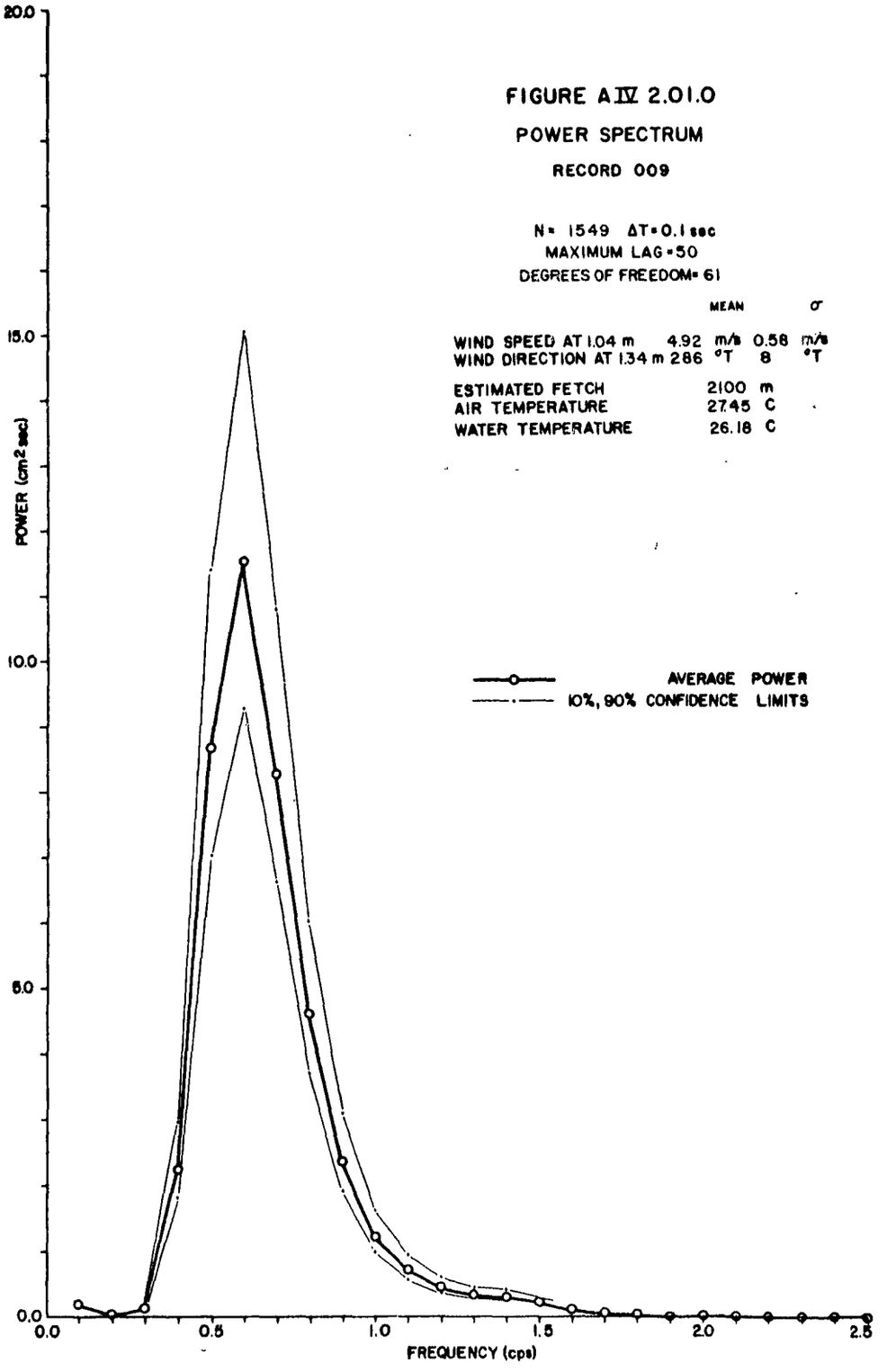


FIGURE AIV 2.01.0

POWER SPECTRUM

RECORD 009

N= 1549 ΔT=0.1 sec
MAXIMUM LAG=50
DEGREES OF FREEDOM= 61

	MEAN		σ	
WIND SPEED AT 1.04 m	4.92	m/s	0.58	m/s
WIND DIRECTION AT 1.34 m	286	°T	8	°T
ESTIMATED FETCH	2100	m		
AIR TEMPERATURE	27.45	C		
WATER TEMPERATURE	26.18	C		

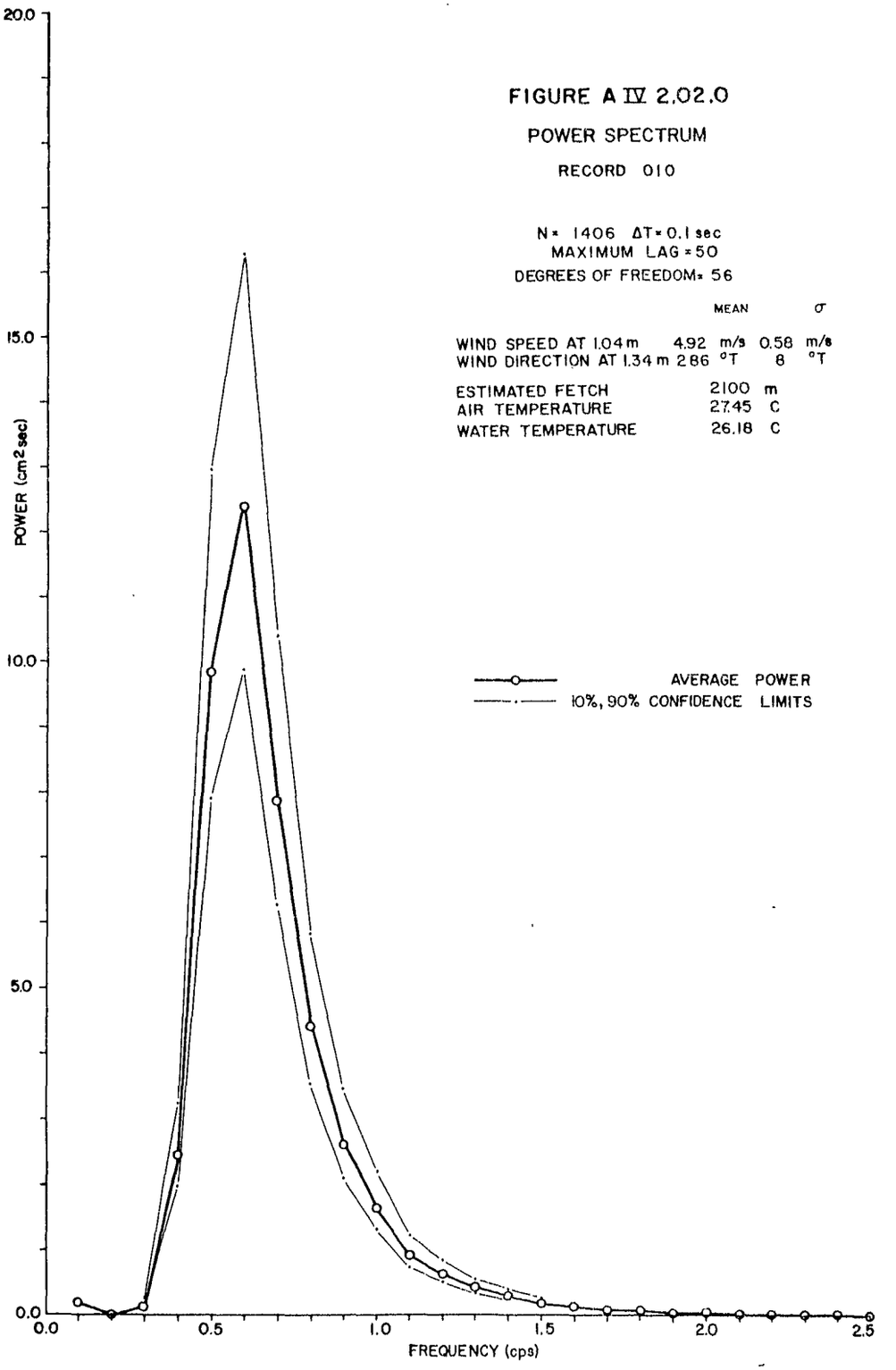


FIGURE A IV 2.02.0

POWER SPECTRUM

RECORD 010

N= 1406 ΔT= 0.1 sec
MAXIMUM LAG = 50
DEGREES OF FREEDOM= 56

	MEAN		σ	
WIND SPEED AT 1.04 m	4.92	m/s	0.58	m/s
WIND DIRECTION AT 1.34 m	286	°T	8	°T
ESTIMATED FETCH	2100	m		
AIR TEMPERATURE	27.45	C		
WATER TEMPERATURE	26.18	C		

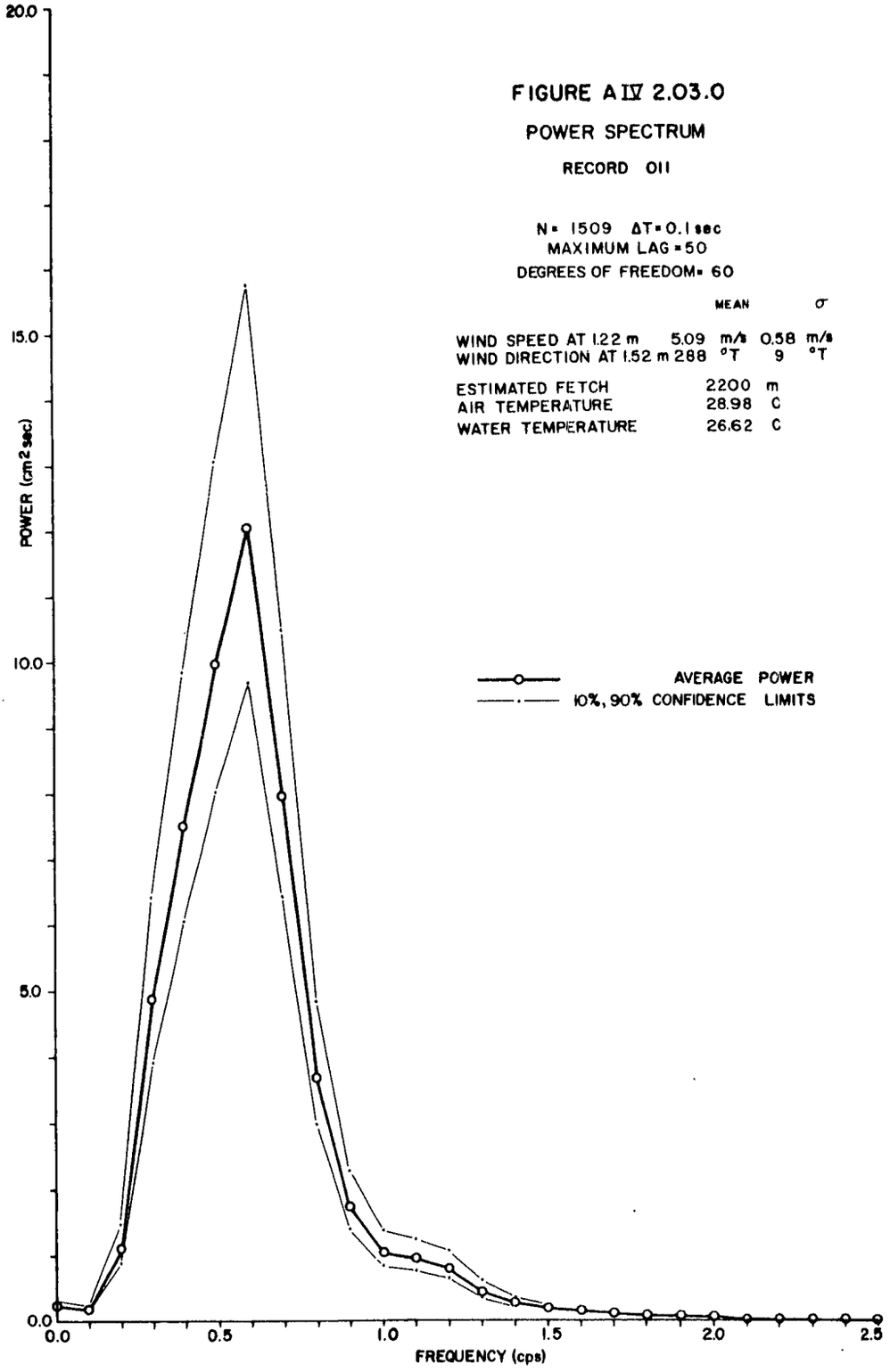


FIGURE A IV 2.03.0

POWER SPECTRUM

RECORD 011

N = 1509 ΔT = 0.1 sec
MAXIMUM LAG = 50
DEGREES OF FREEDOM = 60

	MEAN		σ	
WIND SPEED AT 1.22 m	5.09	m/s	0.58	m/s
WIND DIRECTION AT 1.52 m	288	°T	9	°T
ESTIMATED FETCH	2200	m		
AIR TEMPERATURE	28.98	C		
WATER TEMPERATURE	26.62	C		

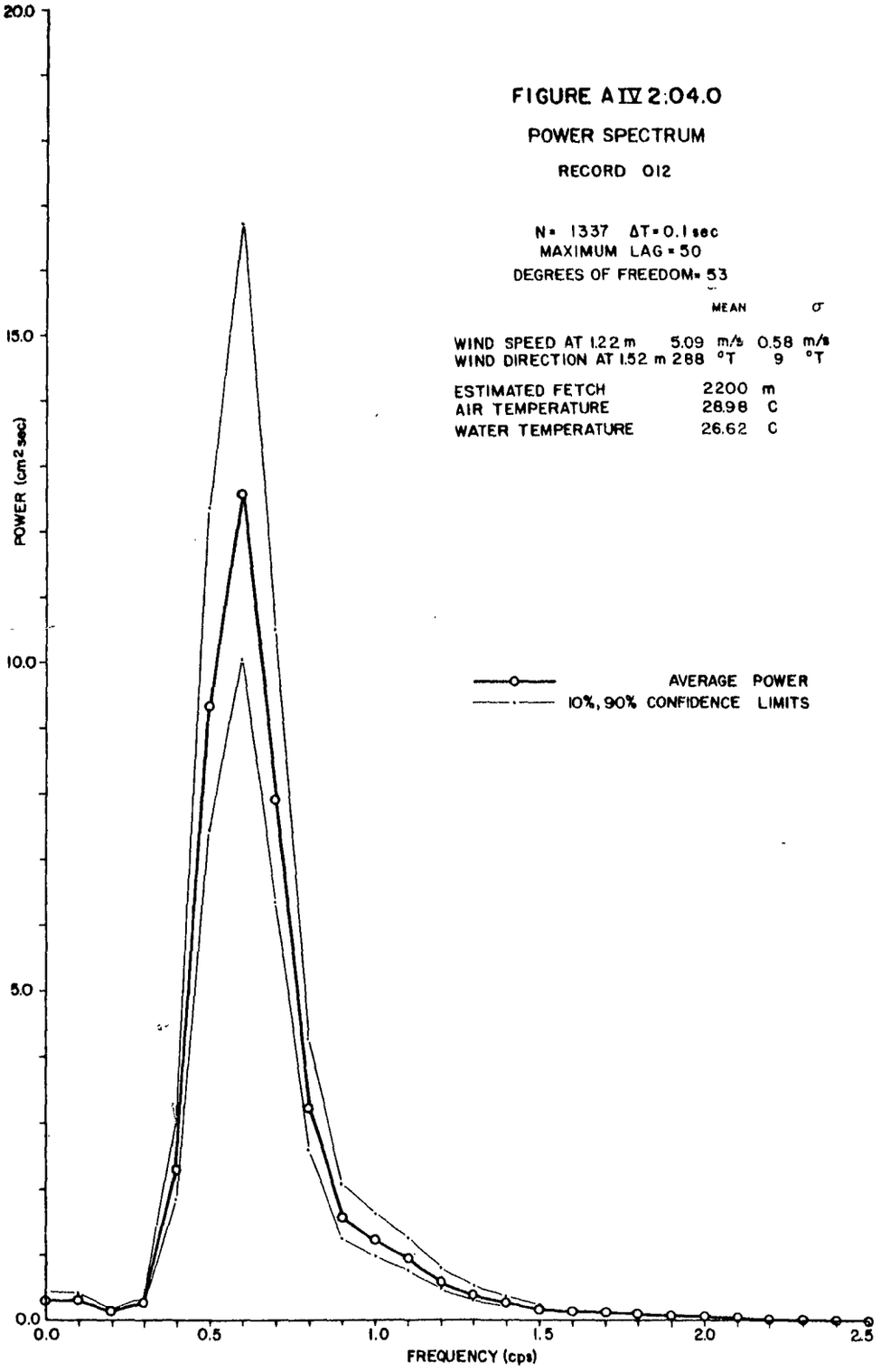
FIGURE A IV 2.04.0

POWER SPECTRUM

RECORD 012

N= 1337 ΔT=0.1 sec
MAXIMUM LAG = 50
DEGREES OF FREEDOM= 53

	MEAN	σ
WIND SPEED AT 1.22 m	5.09 m/s	0.58 m/s
WIND DIRECTION AT 1.52 m	288 °T	9 °T
ESTIMATED FETCH	2200 m	
AIR TEMPERATURE	28.98 C	
WATER TEMPERATURE	26.62 C	



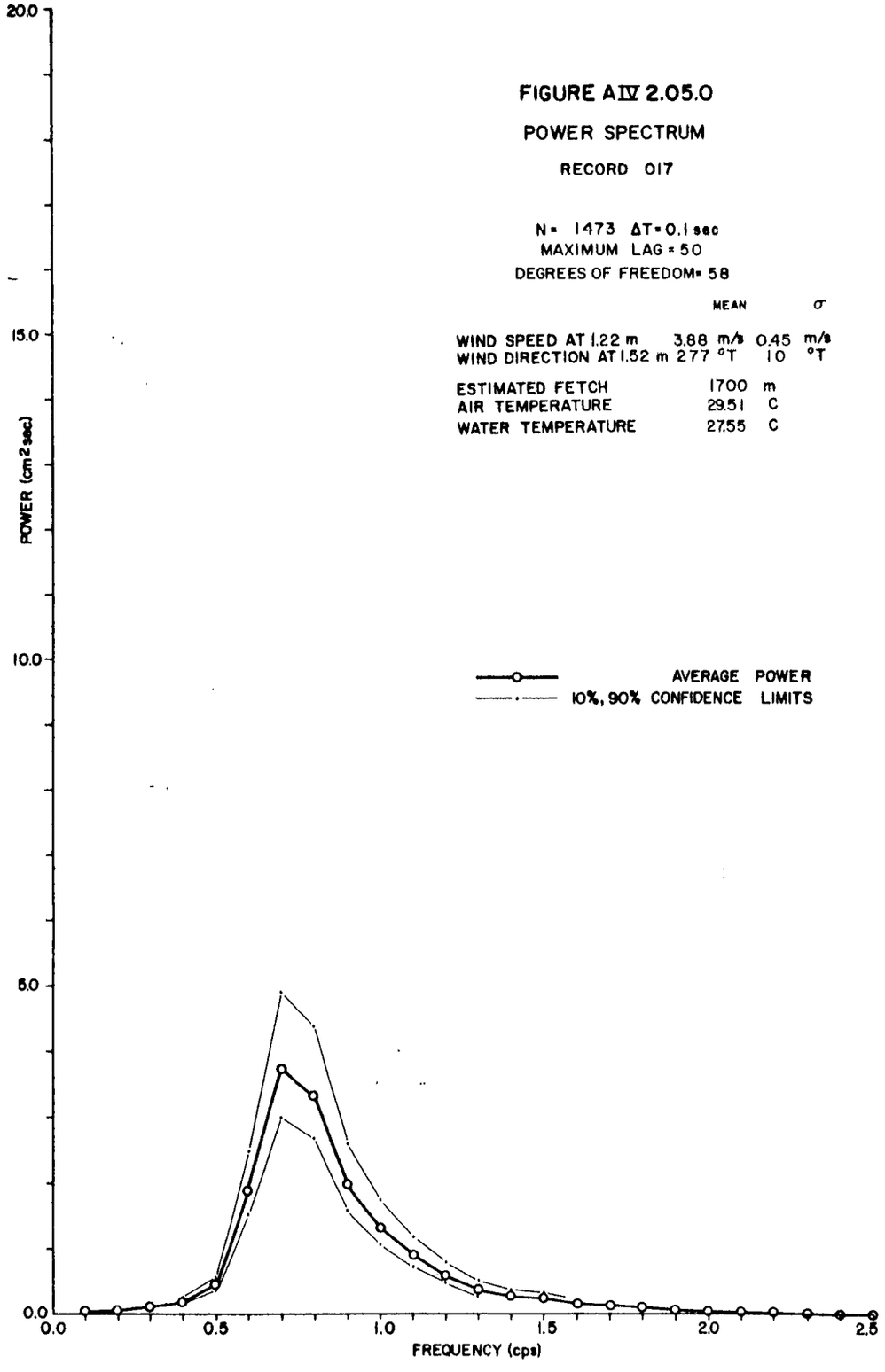


FIGURE AIV 2.05.0
POWER SPECTRUM
RECORD 017
N= 1473 ΔT=0.1 sec
MAXIMUM LAG = 50
DEGREES OF FREEDOM= 58
MEAN σ
WIND SPEED AT 1.22 m 3.88 m/s 0.45 m/s
WIND DIRECTION AT 1.52 m 277 °T 10 °T
ESTIMATED FETCH 1700 m
AIR TEMPERATURE 29.51 C
WATER TEMPERATURE 27.55 C
AVERAGE POWER
10%, 90% CONFIDENCE LIMITS
POWER (cm² sec)
FREQUENCY (cps)
20.0
15.0
10.0
5.0
0.0
0.0
0.5
1.0
1.5
2.0
2.5

FIGURE AIV 2.06.0

POWER SPECTRUM

RECORD 018

N = 1411 ΔT = 0.1 sec
MAXIMUM LAG = 50
DEGREES OF FREEDOM = 56

	MEAN	σ
WIND SPEED AT 1.22 m	3.88 m/s	0.45 m/s
WIND DIRECTION AT 1.52 m	277 °T	10 °T
ESTIMATED FETCH	1700 m	
AIR TEMPERATURE	29.51 C	
WATER TEMPERATURE	27.55 C	

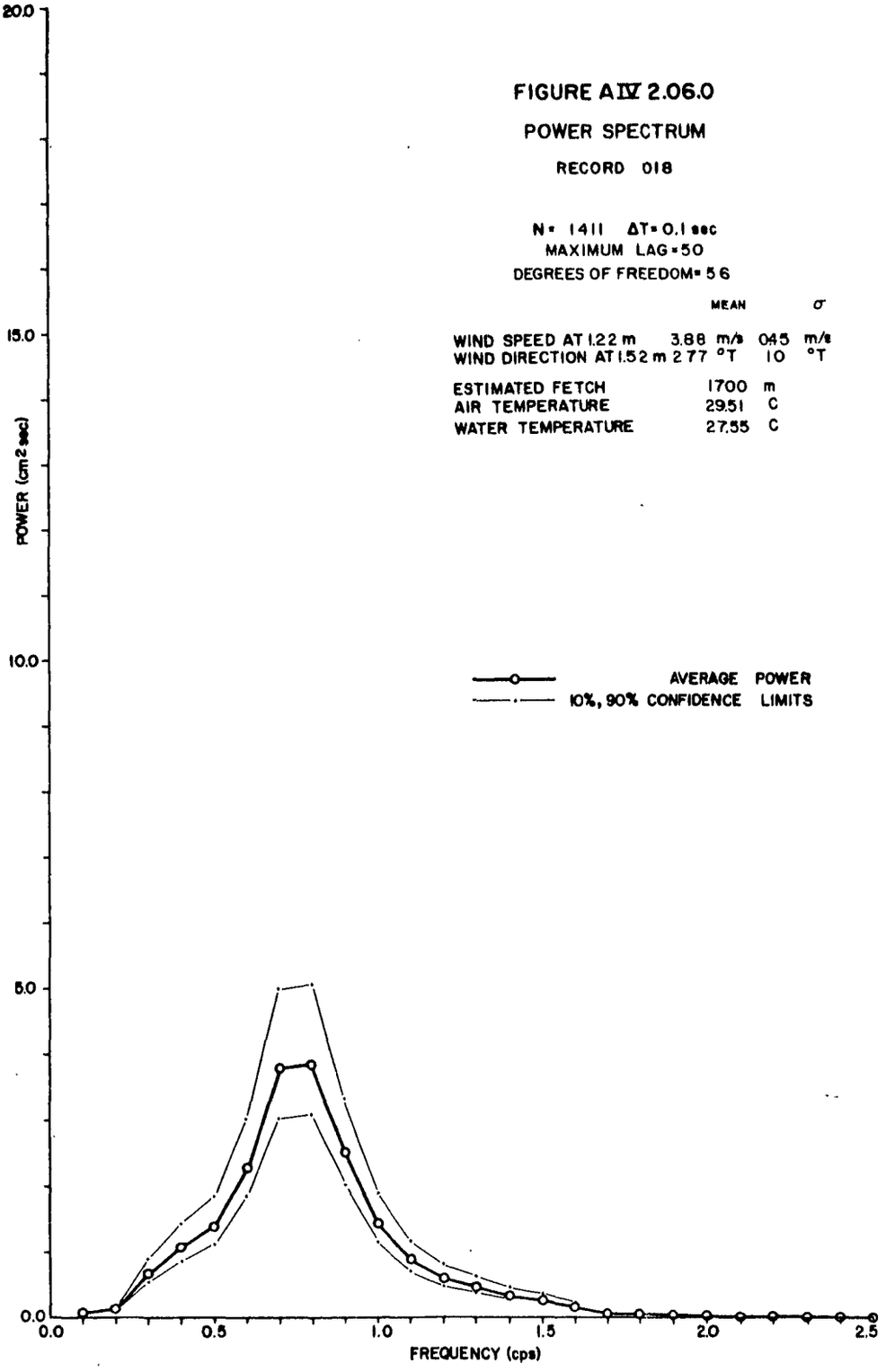


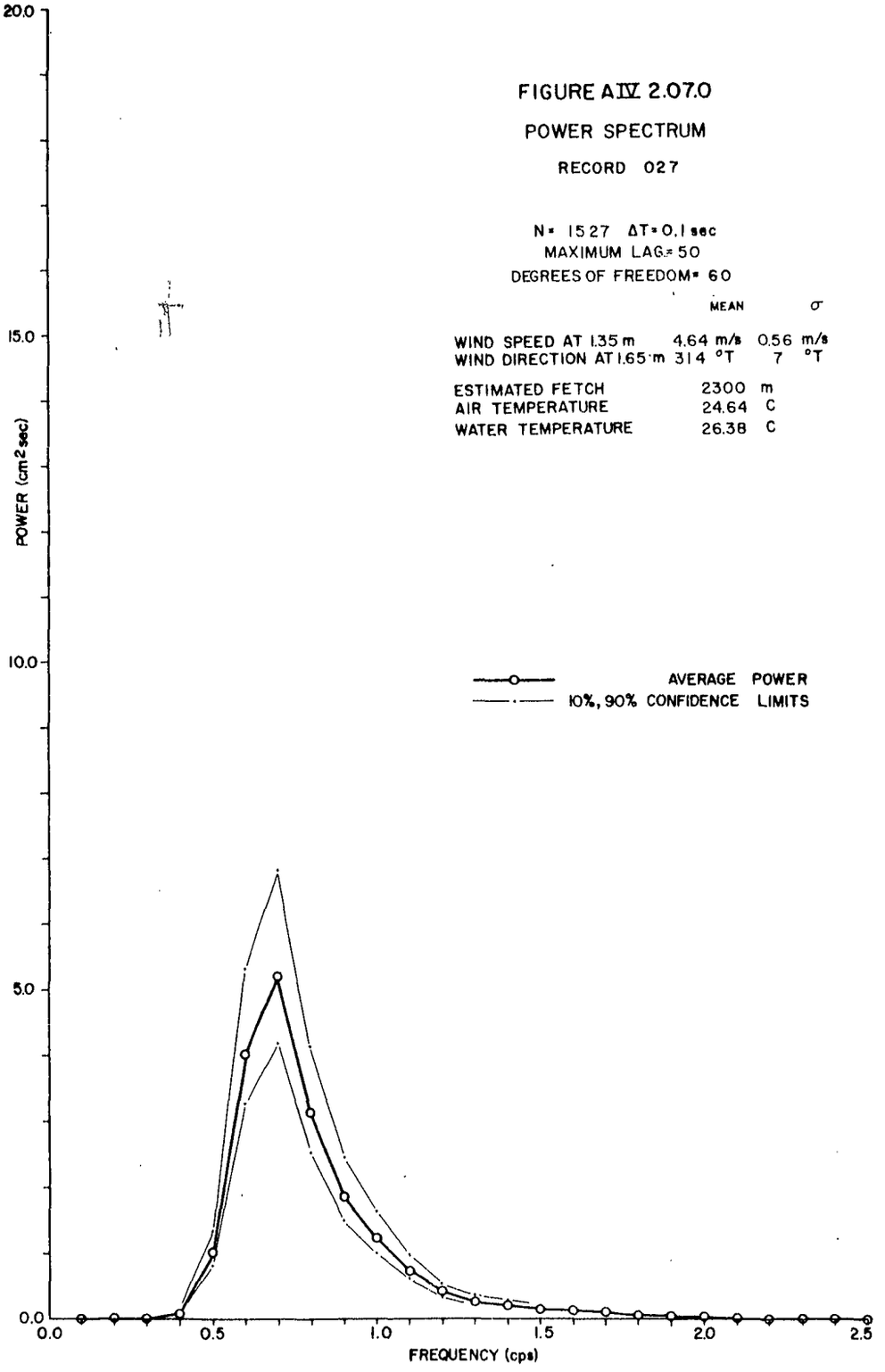
FIGURE AIV 2.07.0

POWER SPECTRUM

RECORD 027

N= 1527 ΔT=0.1 sec
MAXIMUM LAG= 50
DEGREES OF FREEDOM= 60

	MEAN	σ
WIND SPEED AT 1.35 m	4.64 m/s	0.56 m/s
WIND DIRECTION AT 1.65 m	314 °T	7 °T
ESTIMATED FETCH	2300 m	
AIR TEMPERATURE	24.64 C	
WATER TEMPERATURE	26.38 C	



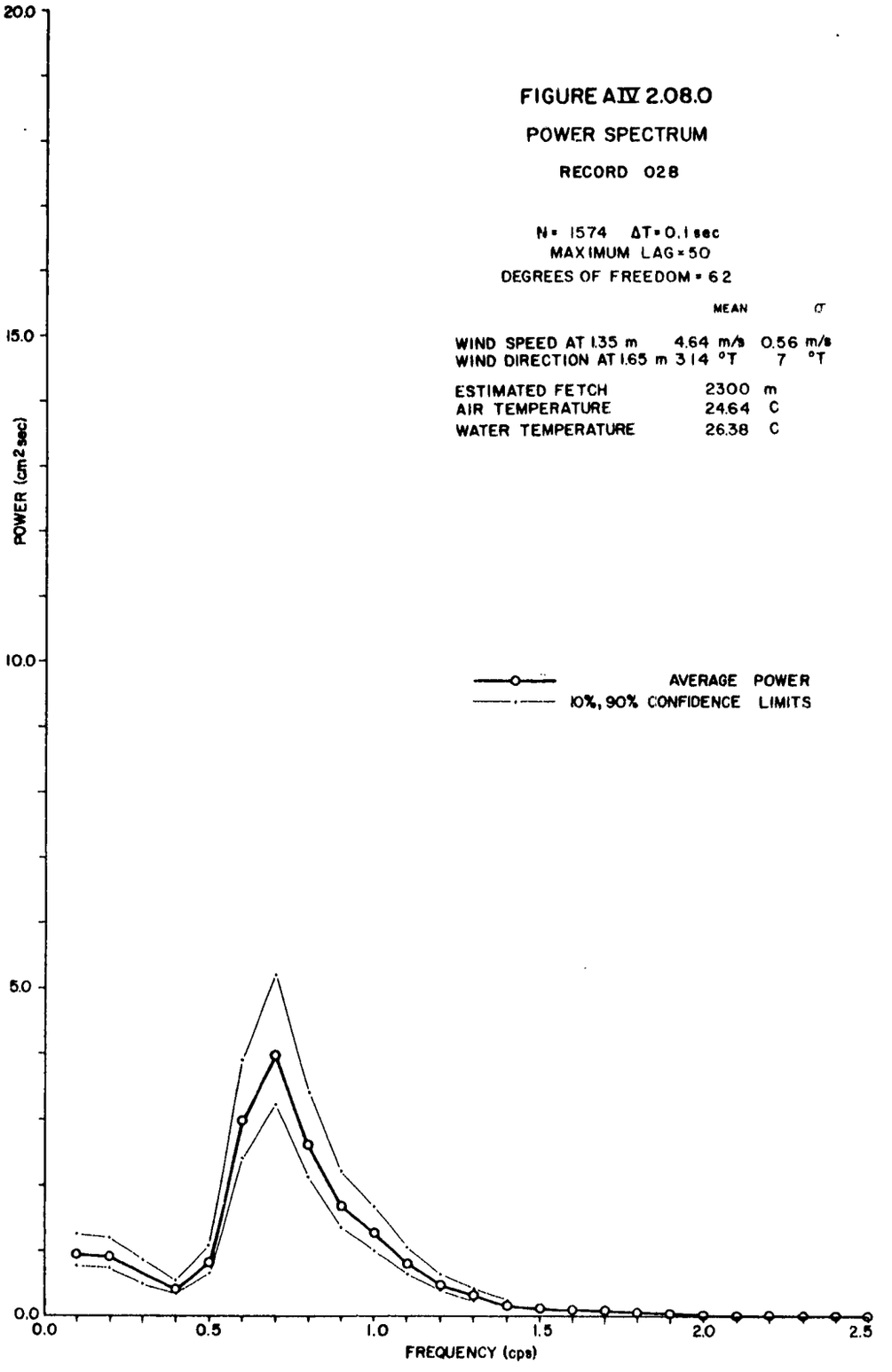


FIGURE AIV 2.08.0

POWER SPECTRUM

RECORD 028

N = 1574 ΔT = 0.1 sec
MAXIMUM LAG = 50
DEGREES OF FREEDOM = 62

	MEAN	σ
WIND SPEED AT 1.35 m	4.64 m/s	0.56 m/s
WIND DIRECTION AT 1.65 m	314 °T	7 °T
ESTIMATED FETCH	2300 m	
AIR TEMPERATURE	24.64 C	
WATER TEMPERATURE	26.38 C	

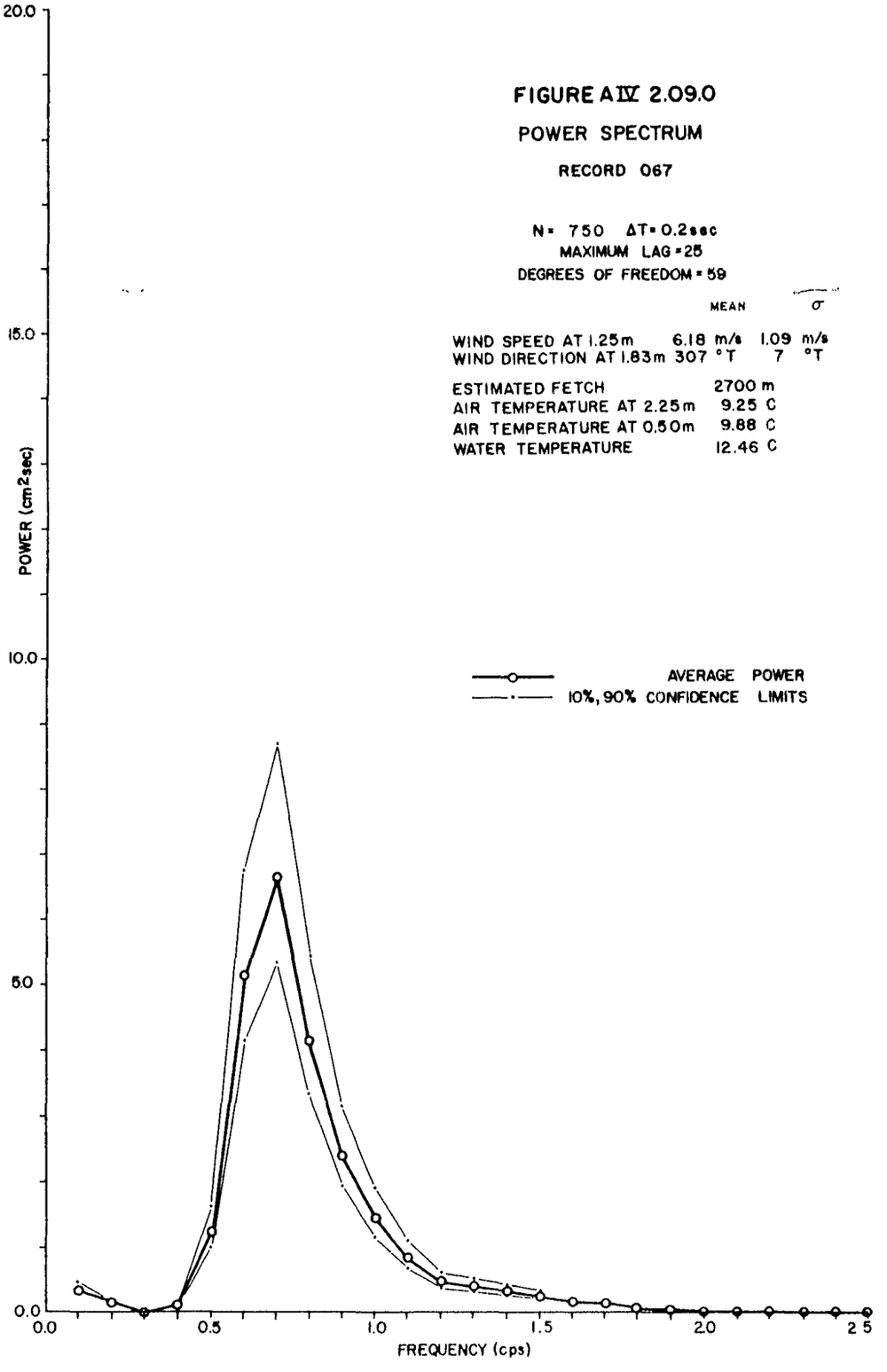


FIGURE AIV 2.09.0
POWER SPECTRUM
RECORD 067
N= 750 ΔT=0.2sec
MAXIMUM LAG=25
DEGREES OF FREEDOM=59
MEAN σ
WIND SPEED AT 1.25m 6.18 m/s 1.09 m/s
WIND DIRECTION AT 1.83m 307 °T 7 °T
ESTIMATED FETCH 2700 m
AIR TEMPERATURE AT 2.25m 9.25 C
AIR TEMPERATURE AT 0.50m 9.88 C
WATER TEMPERATURE 12.46 C
AVERAGE POWER
10%, 90% CONFIDENCE LIMITS
POWER (cm²sec)
20.0
15.0
10.0
5.0
0.0
0.0
0.5
1.0
1.5
2.0
2.5
FREQUENCY (cps)

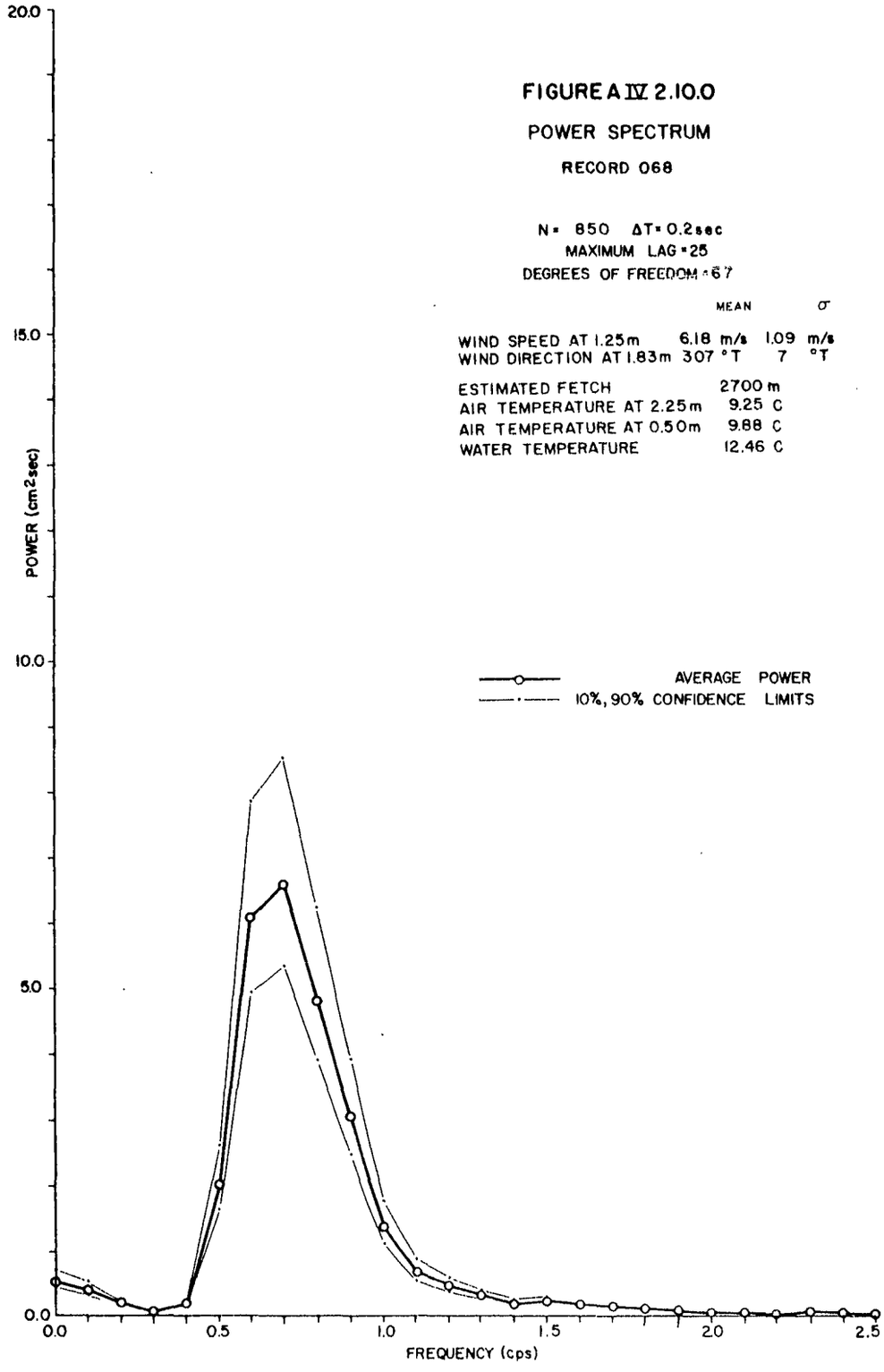


FIGURE A IV 2.10.0

POWER SPECTRUM

RECORD 068

N = 850 ΔT = 0.2sec
MAXIMUM LAG = 25
DEGREES OF FREEDOM = 67

	MEAN	σ
WIND SPEED AT 1.25m	6.18 m/s	1.09 m/s
WIND DIRECTION AT 1.83m	307 °T	7 °T
ESTIMATED FETCH	2700 m	
AIR TEMPERATURE AT 2.25m	9.25 C	
AIR TEMPERATURE AT 0.50m	9.88 C	
WATER TEMPERATURE	12.46 C	

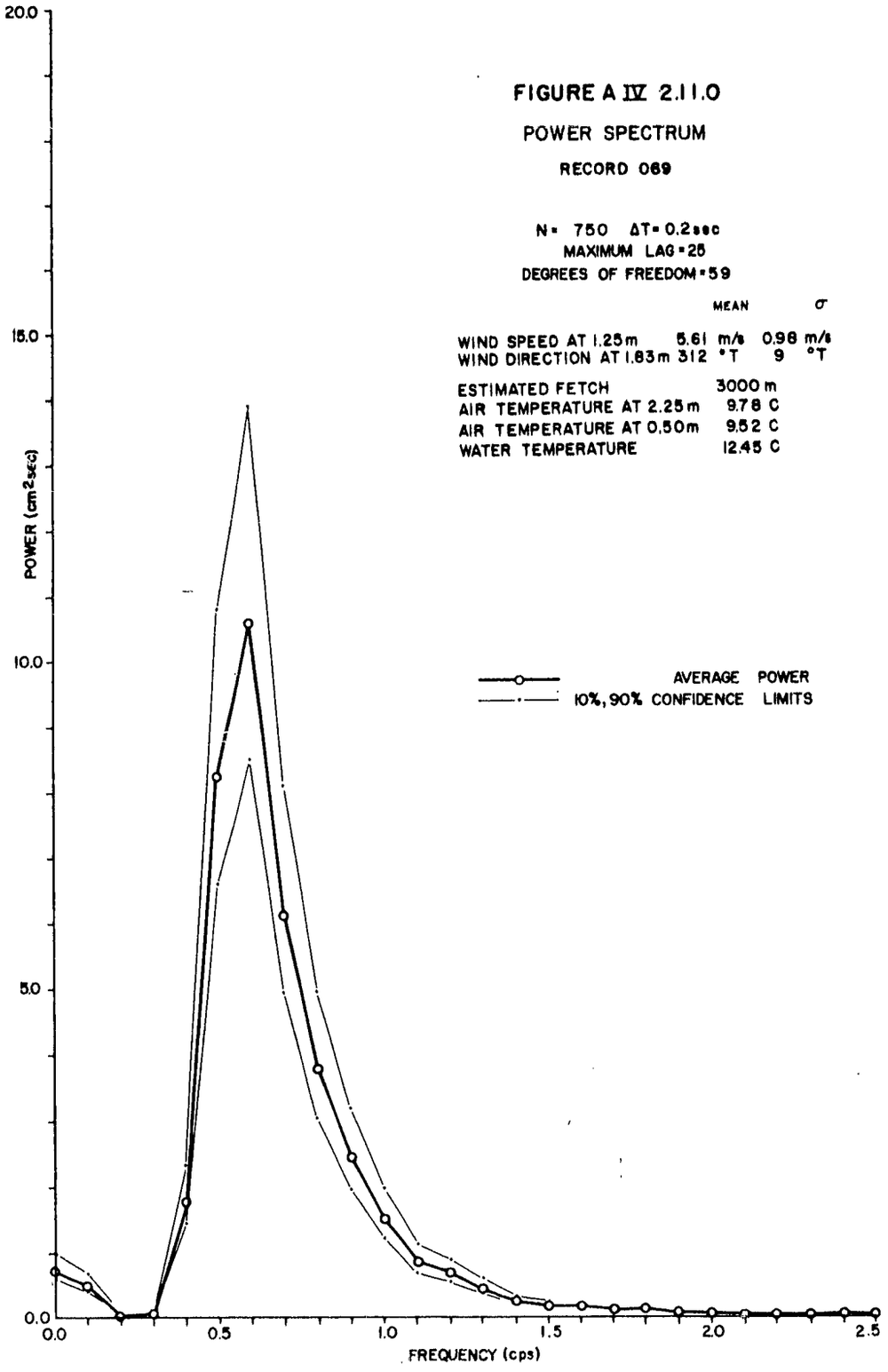


FIGURE A IV 2.11.0

POWER SPECTRUM

RECORD 069

N = 750 ΔT = 0.2 sec
MAXIMUM LAG = 25
DEGREES OF FREEDOM = 59

	MEAN	σ
WIND SPEED AT 1.25 m	5.61 m/s	0.98 m/s
WIND DIRECTION AT 1.83 m	312 °T	9 °T
ESTIMATED FETCH	3000 m	
AIR TEMPERATURE AT 2.25 m	9.78 C	
AIR TEMPERATURE AT 0.50 m	9.52 C	
WATER TEMPERATURE	12.45 C	

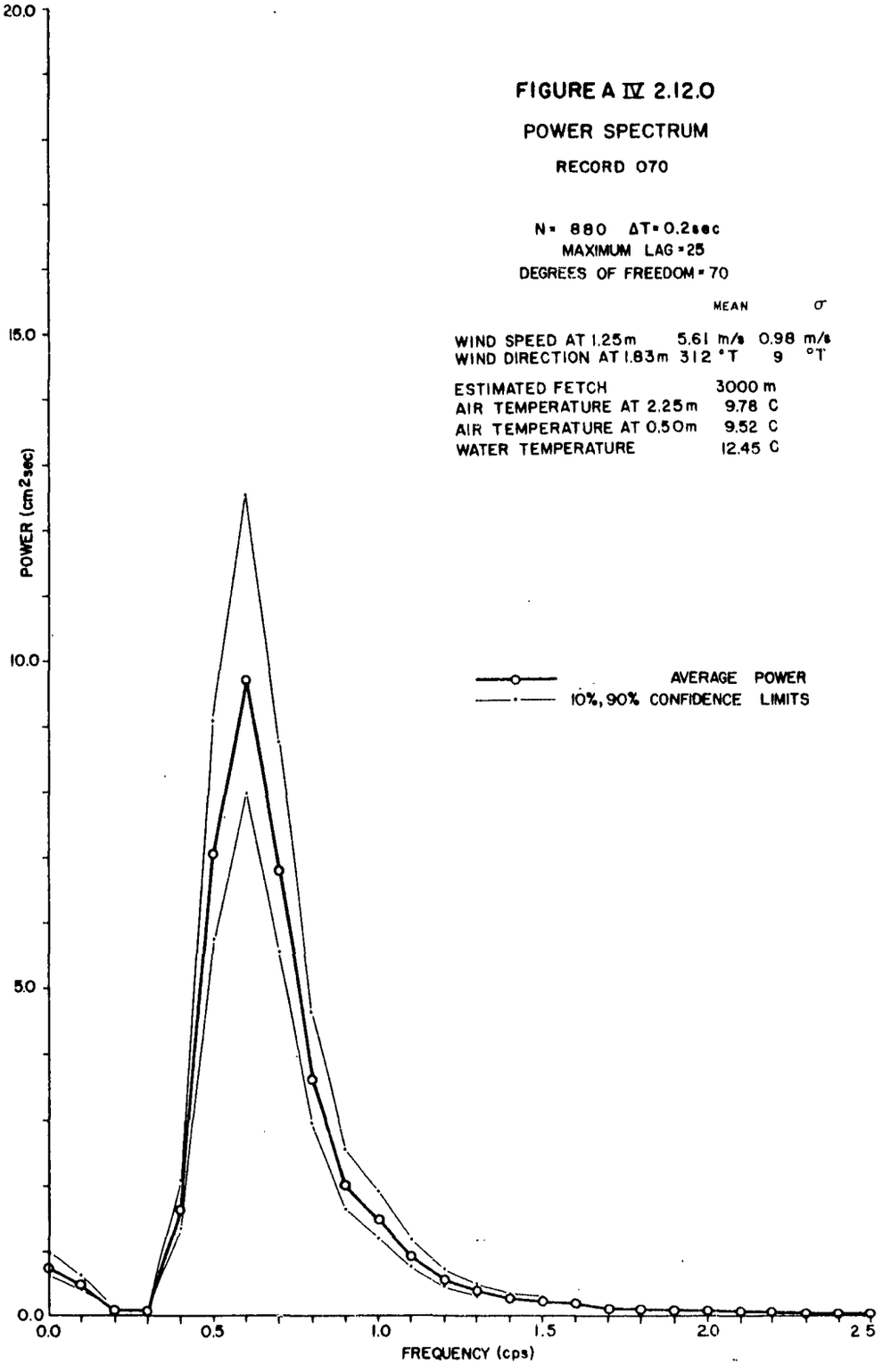


FIGURE A IV 2.12.0

POWER SPECTRUM

RECORD 070

N = 880 ΔT = 0.2sec
MAXIMUM LAG = 25
DEGREES OF FREEDOM = 70

	MEAN	σ
WIND SPEED AT 1.25m	5.61 m/s	0.98 m/s
WIND DIRECTION AT 1.83m	312 °T	9 °T
ESTIMATED FETCH	3000 m	
AIR TEMPERATURE AT 2.25m	9.78 C	
AIR TEMPERATURE AT 0.50m	9.52 C	
WATER TEMPERATURE	12.45 C	

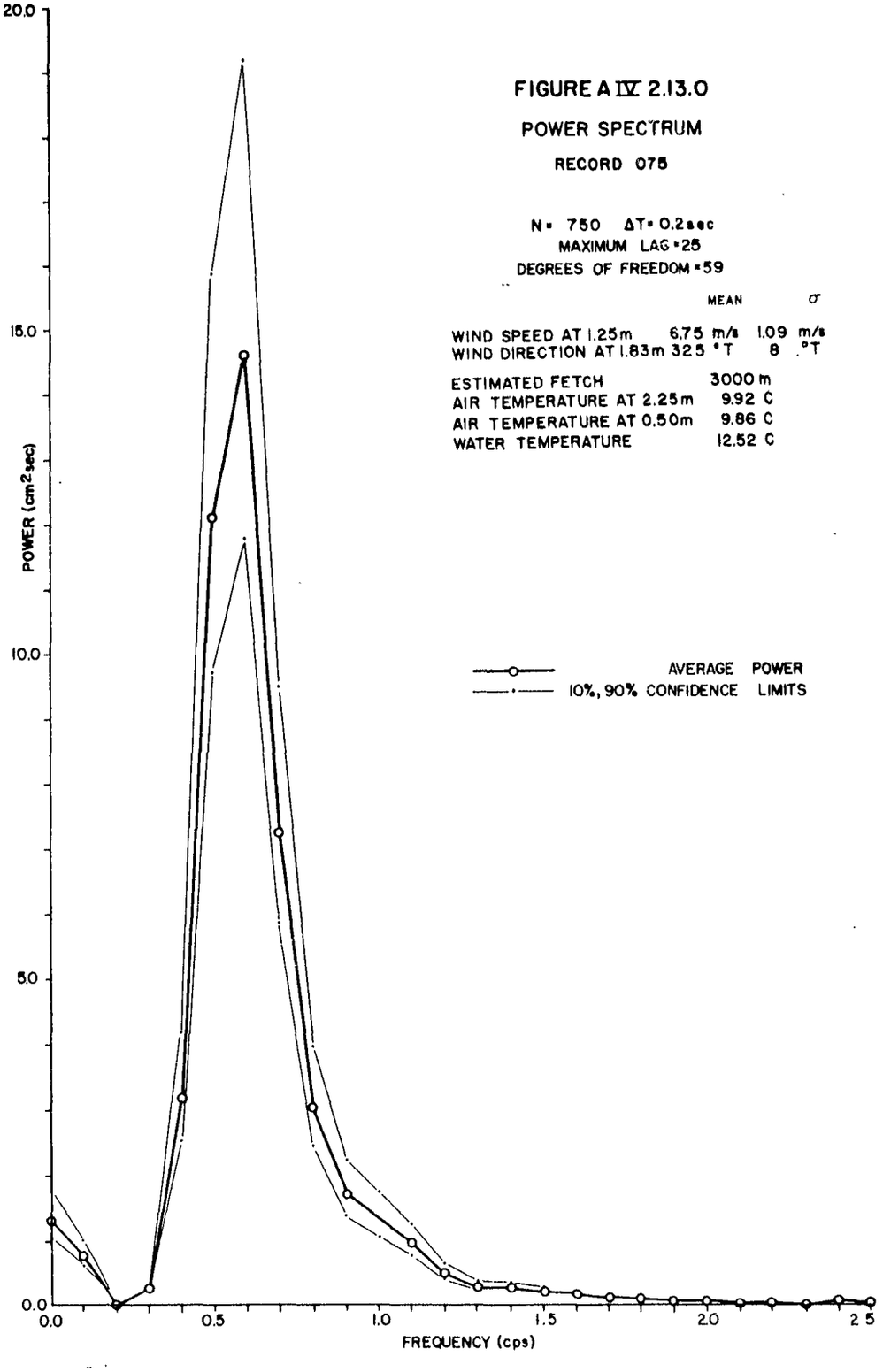


FIGURE A IV 2.13.0

POWER SPECTRUM

RECORD 075

N = 750 ΔT = 0.2 sec
MAXIMUM LAG = 25
DEGREES OF FREEDOM = 59

	MEAN	σ
WIND SPEED AT 1.25m	6.75 m/s	1.09 m/s
WIND DIRECTION AT 1.83m	325 °T	8 °T

ESTIMATED FETCH	3000 m
AIR TEMPERATURE AT 2.25m	9.92 C
AIR TEMPERATURE AT 0.50m	9.86 C
WATER TEMPERATURE	12.52 C

AVERAGE POWER
10%, 90% CONFIDENCE LIMITS

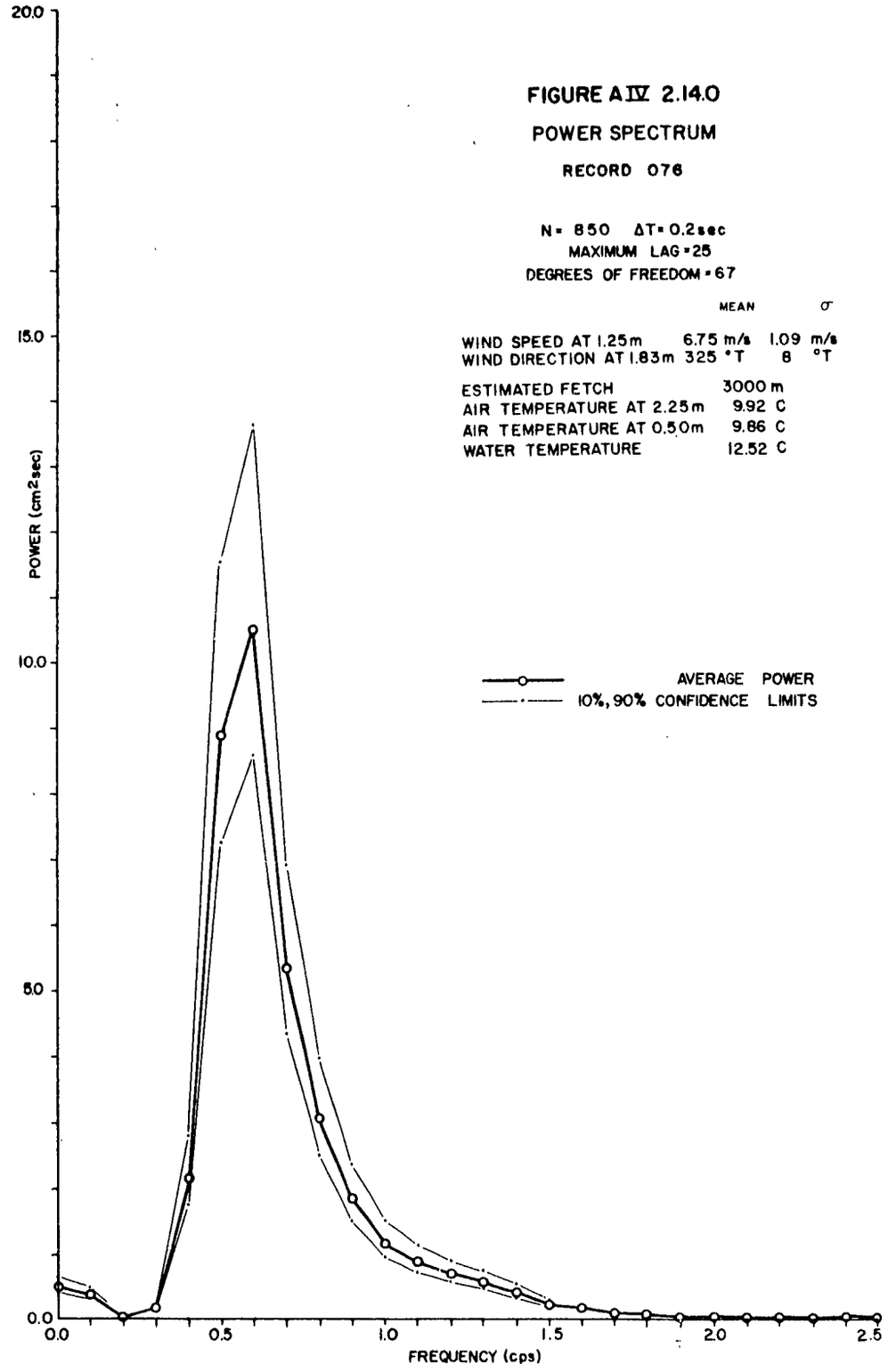


FIGURE A IV 2.14.0

POWER SPECTRUM

RECORD 076

N = 850 ΔT = 0.2sec
MAXIMUM LAG = 25
DEGREES OF FREEDOM = 67

	MEAN	σ
WIND SPEED AT 1.25m	6.75 m/s	1.09 m/s
WIND DIRECTION AT 1.83m	325 °T	8 °T
ESTIMATED FETCH	3000 m	
AIR TEMPERATURE AT 2.25m	9.92 C	
AIR TEMPERATURE AT 0.50m	9.86 C	
WATER TEMPERATURE	12.52 C	

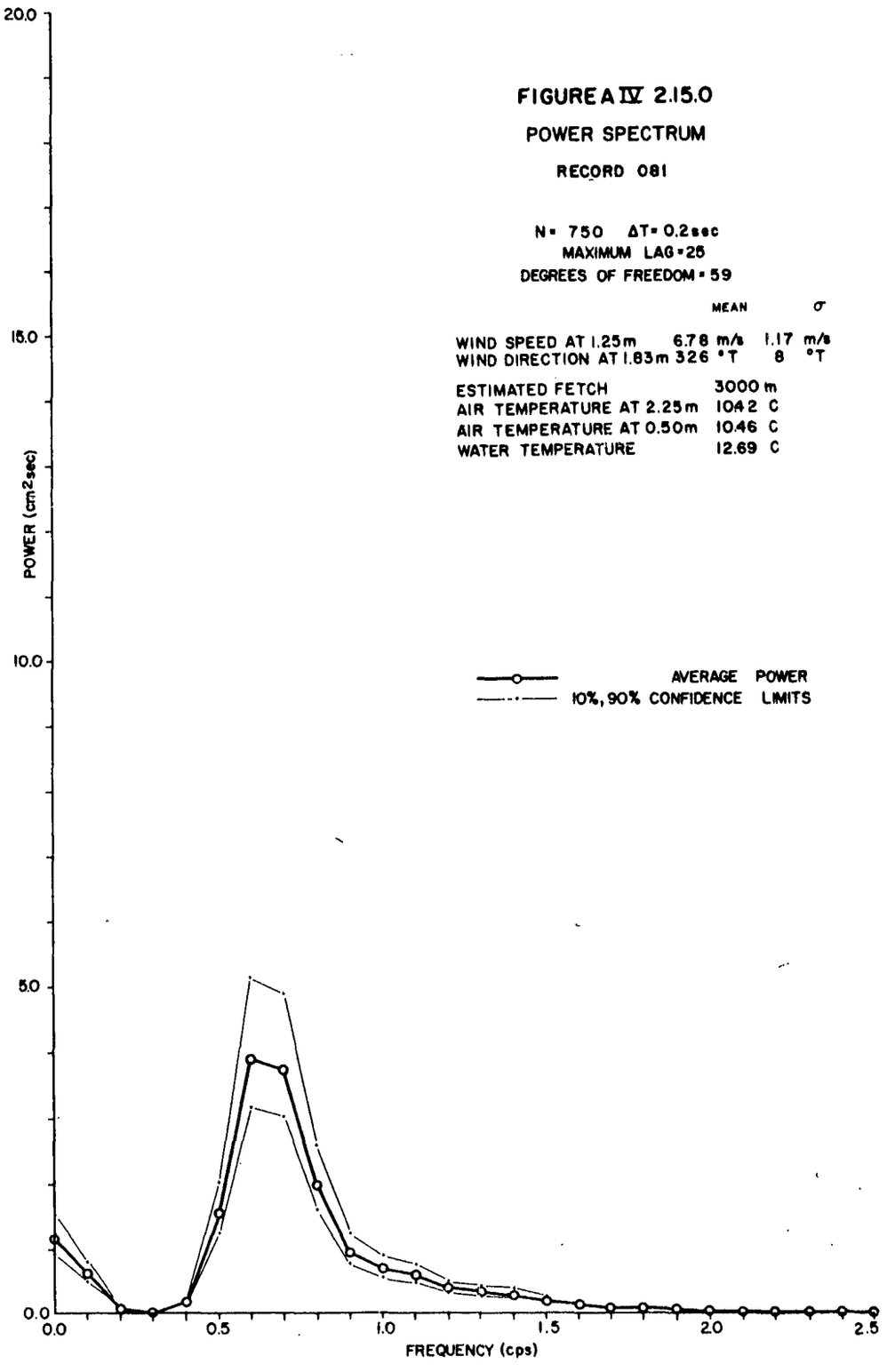


FIGURE A IV 2.15.0

POWER SPECTRUM

RECORD 081

N = 750 ΔT = 0.2 sec
MAXIMUM LAG = 25
DEGREES OF FREEDOM = 59

	MEAN	σ
WIND SPEED AT 1.25m	6.78 m/s	1.17 m/s
WIND DIRECTION AT 1.83m	326 °T	8 °T
ESTIMATED FETCH	3000 m	
AIR TEMPERATURE AT 2.25m	10.42 C	
AIR TEMPERATURE AT 0.50m	10.46 C	
WATER TEMPERATURE	12.69 C	

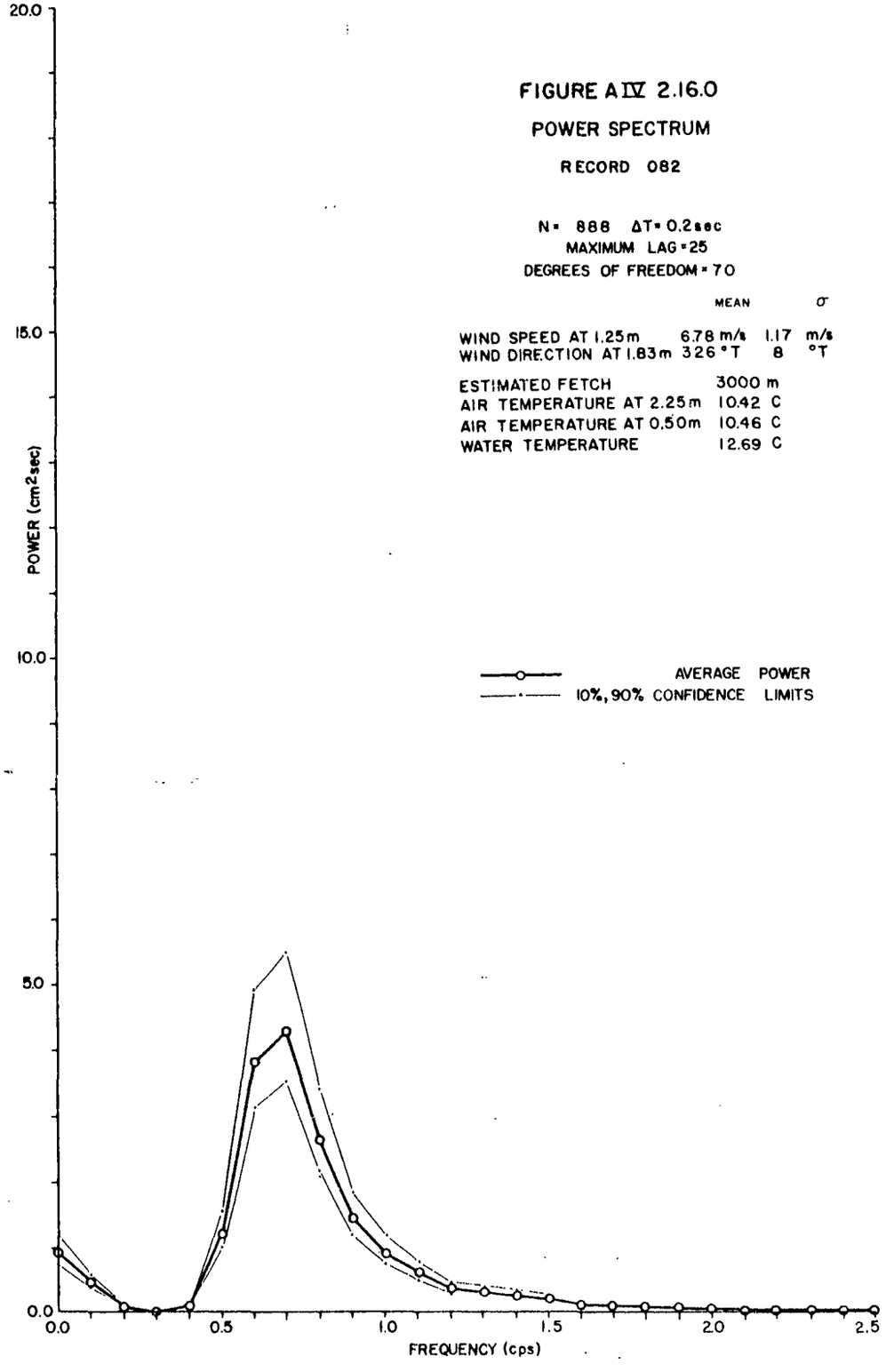
FIGURE A IV 2.16.0

POWER SPECTRUM

RECORD 082

N = 888 ΔT = 0.2 sec
MAXIMUM LAG = 25
DEGREES OF FREEDOM = 70

	MEAN	σ	
WIND SPEED AT 1.25m	6.78 m/s	1.17	m/s
WIND DIRECTION AT 1.83m	326 °T	8	°T
ESTIMATED FETCH	3000 m		
AIR TEMPERATURE AT 2.25m	10.42 C		
AIR TEMPERATURE AT 0.50m	10.46 C		
WATER TEMPERATURE	12.69 C		



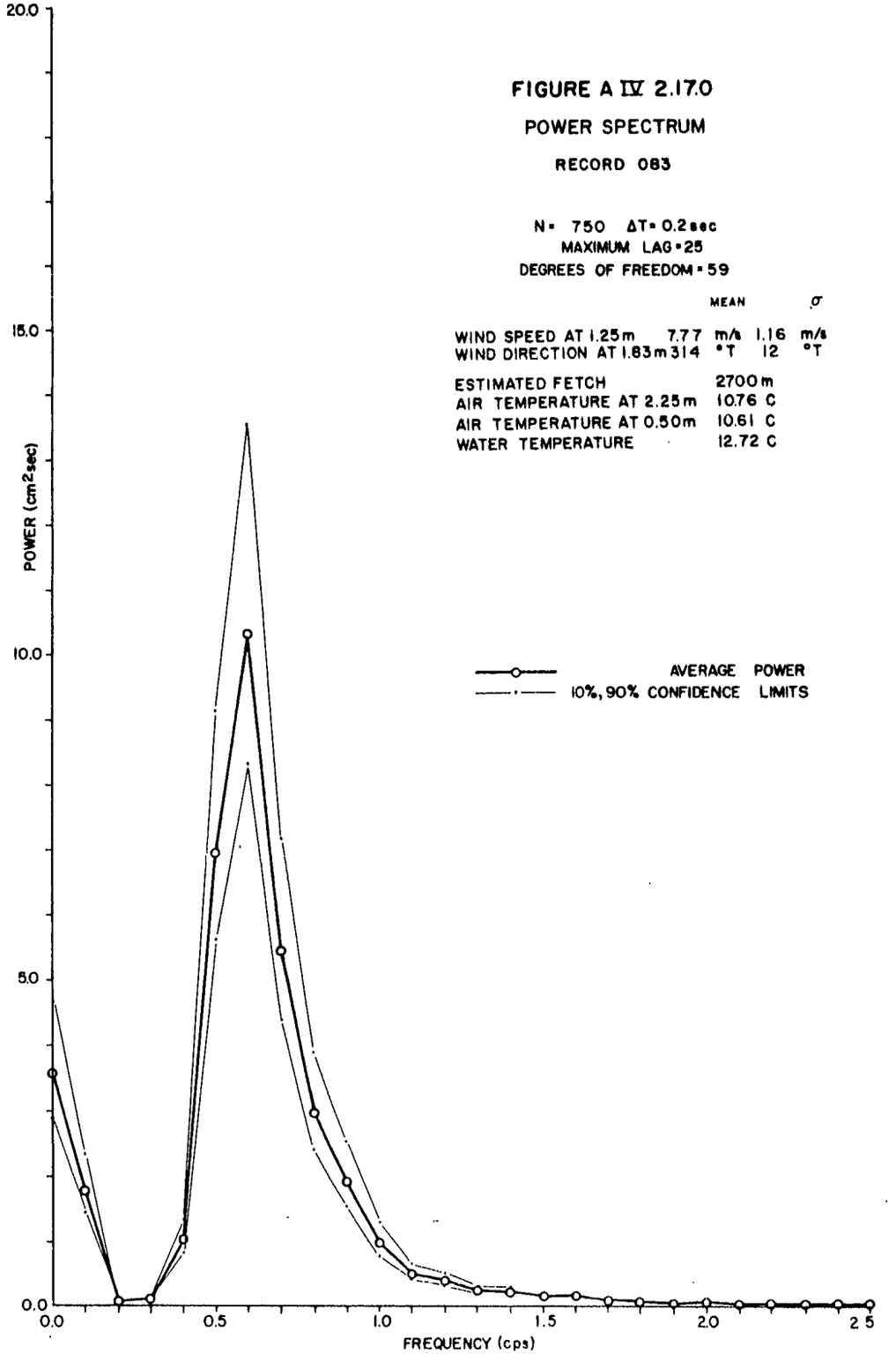


FIGURE A IV 2.17.0

POWER SPECTRUM

RECORD 083

N = 750 ΔT = 0.2 sec
MAXIMUM LAG = 25
DEGREES OF FREEDOM = 59

	MEAN		σ	
WIND SPEED AT 1.25 m	7.77	m/s	1.16	m/s
WIND DIRECTION AT 1.83 m	314	°T	12	°T
ESTIMATED FETCH	2700 m			
AIR TEMPERATURE AT 2.25 m	10.76 C			
AIR TEMPERATURE AT 0.50 m	10.61 C			
WATER TEMPERATURE	12.72 C			

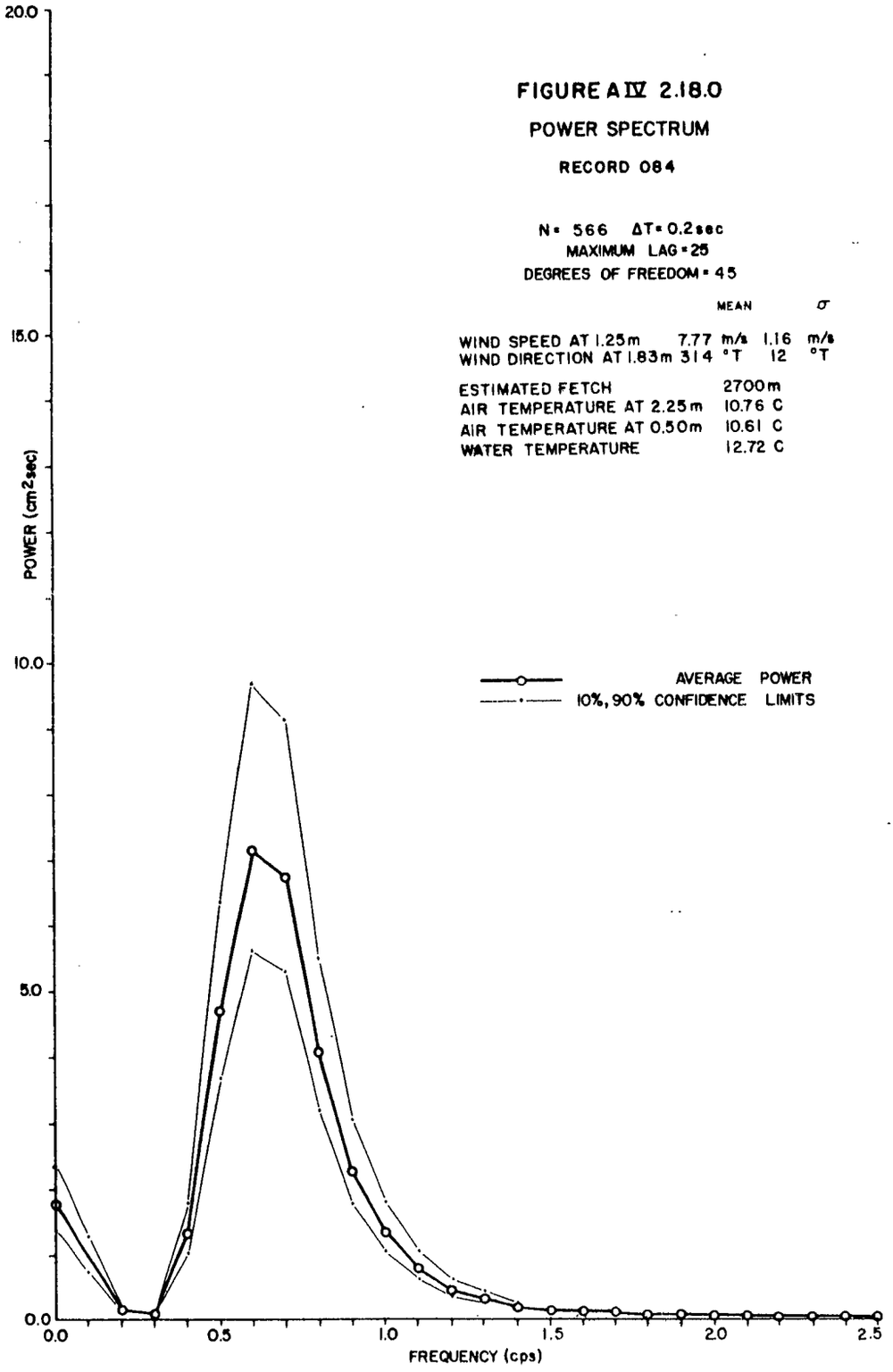


FIGURE A IV 2.18.0

POWER SPECTRUM

RECORD 084

N = 566 ΔT = 0.2 sec
MAXIMUM LAG = 25
DEGREES OF FREEDOM = 45

	MEAN	σ
WIND SPEED AT 1.25m	7.77 m/s	1.16 m/s
WIND DIRECTION AT 1.83m	314 °T	12 °T
ESTIMATED FETCH	2700m	
AIR TEMPERATURE AT 2.25m	10.76 C	
AIR TEMPERATURE AT 0.50m	10.61 C	
WATER TEMPERATURE	12.72 C	

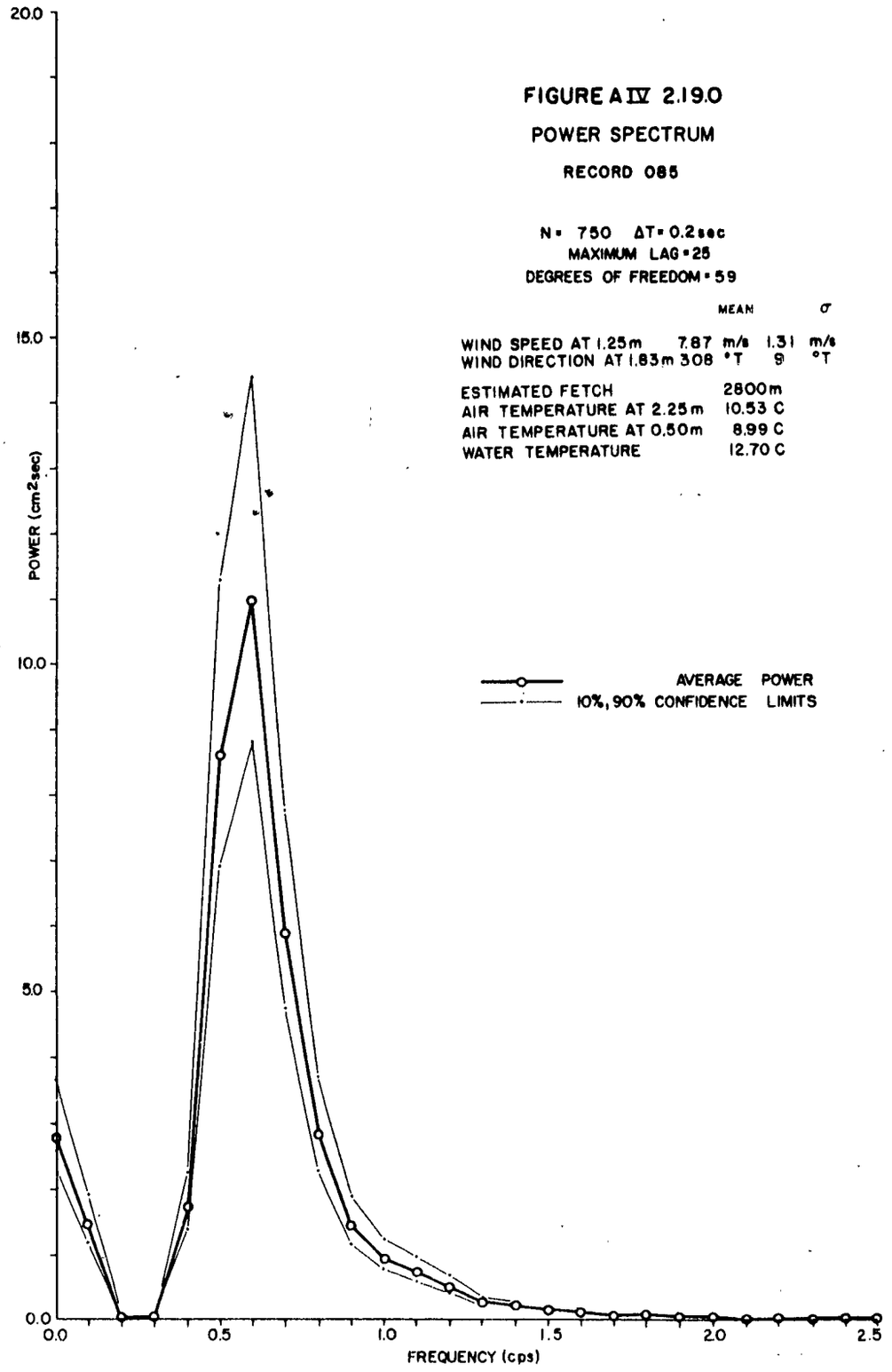


FIGURE A IV 2.19.0
POWER SPECTRUM
RECORD 085
N = 750 ΔT = 0.2 sec
MAXIMUM LAG = 25
DEGREES OF FREEDOM = 59
MEAN σ
WIND SPEED AT 1.25m 7.87 m/s 1.31 m/s
WIND DIRECTION AT 1.83m 308 °T 9 °T
ESTIMATED FETCH 2800m
AIR TEMPERATURE AT 2.25m 10.53 C
AIR TEMPERATURE AT 0.50m 8.99 C
WATER TEMPERATURE 12.70 C
AVERAGE POWER
10%, 90% CONFIDENCE LIMITS
POWER (cm2sec)
FREQUENCY (cps)
20.0
15.0
10.0
5.0
0.0
0.0
0.5
1.0
1.5
2.0
2.5

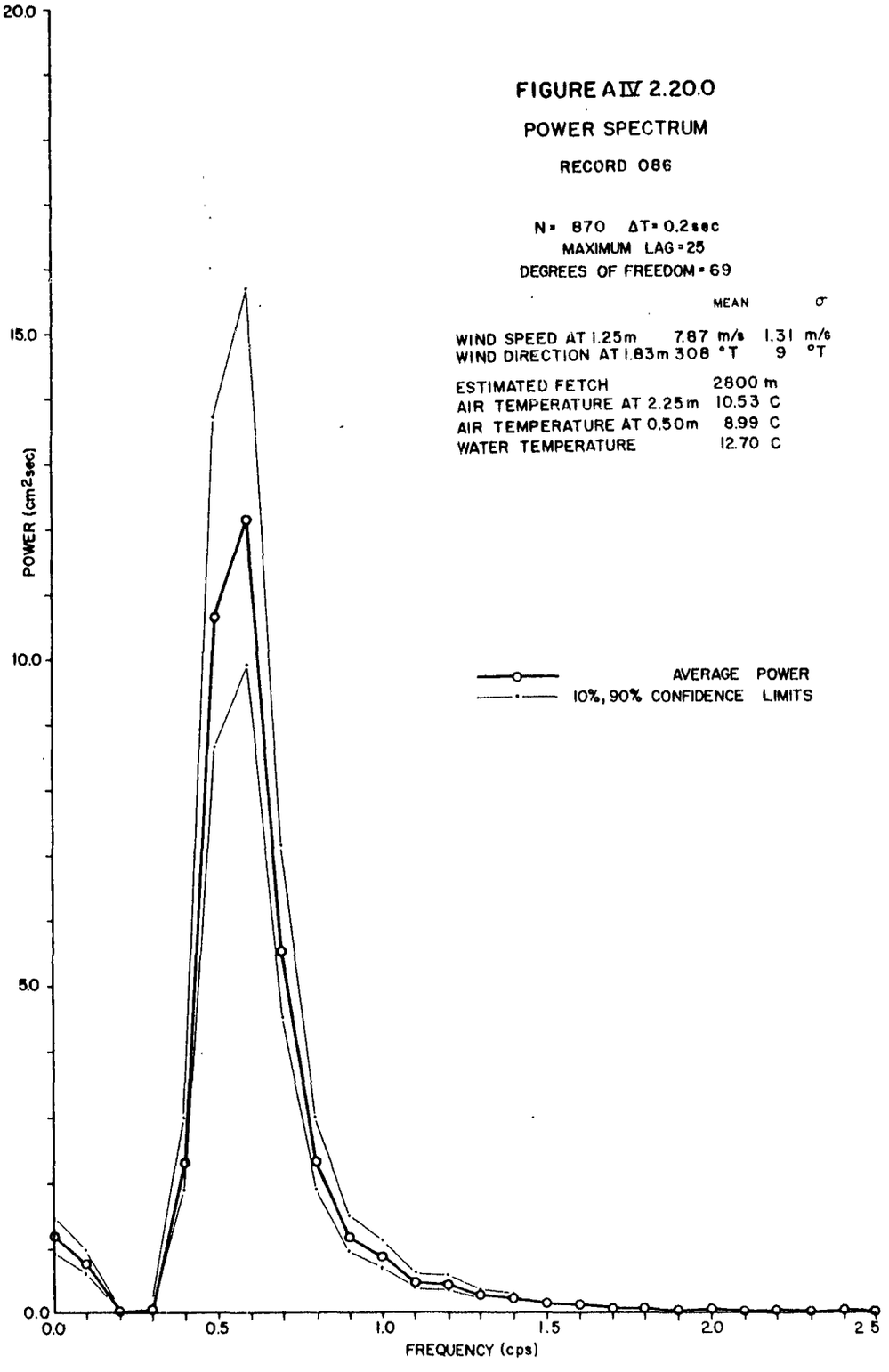


FIGURE A IV 2.20.0

POWER SPECTRUM

RECORD 086

N = 870 ΔT = 0.2 sec
MAXIMUM LAG = 25
DEGREES OF FREEDOM = 69

	MEAN	σ
WIND SPEED AT 1.25m	7.87 m/s	1.31 m/s
WIND DIRECTION AT 1.83m	308 °T	9 °T
ESTIMATED FETCH	2800 m	
AIR TEMPERATURE AT 2.25m	10.53 C	
AIR TEMPERATURE AT 0.50m	8.99 C	
WATER TEMPERATURE	12.70 C	

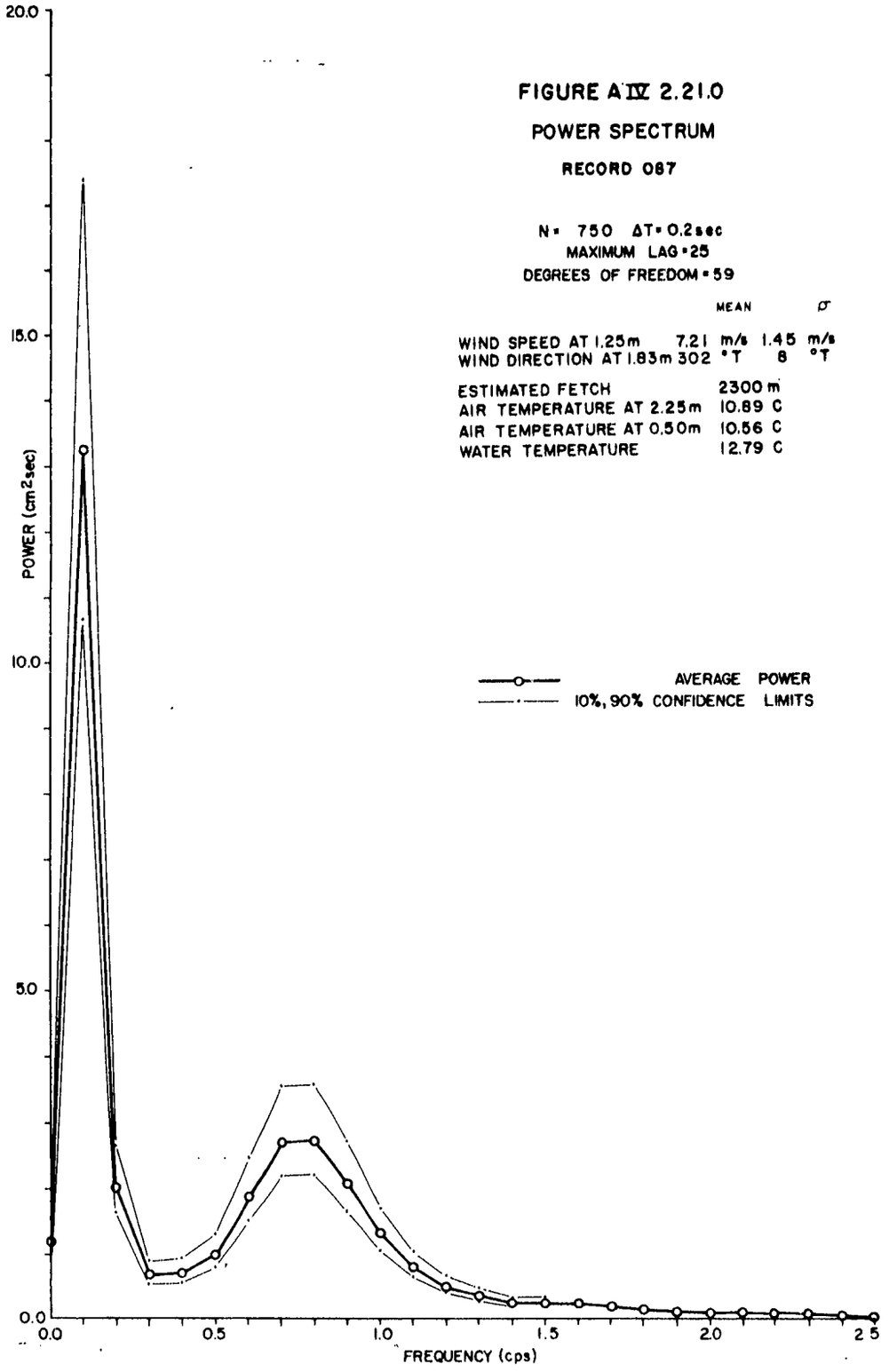


FIGURE A IV 2.21.0

POWER SPECTRUM

RECORD 087

N = 750 ΔT = 0.2sec
MAXIMUM LAG = 25
DEGREES OF FREEDOM = 59

	MEAN	σ
WIND SPEED AT 1.25m	7.21 m/s	1.45 m/s
WIND DIRECTION AT 1.83m	302 °T	8 °T
ESTIMATED FETCH	2300 m	
AIR TEMPERATURE AT 2.25m	10.89 C	
AIR TEMPERATURE AT 0.50m	10.56 C	
WATER TEMPERATURE	12.79 C	

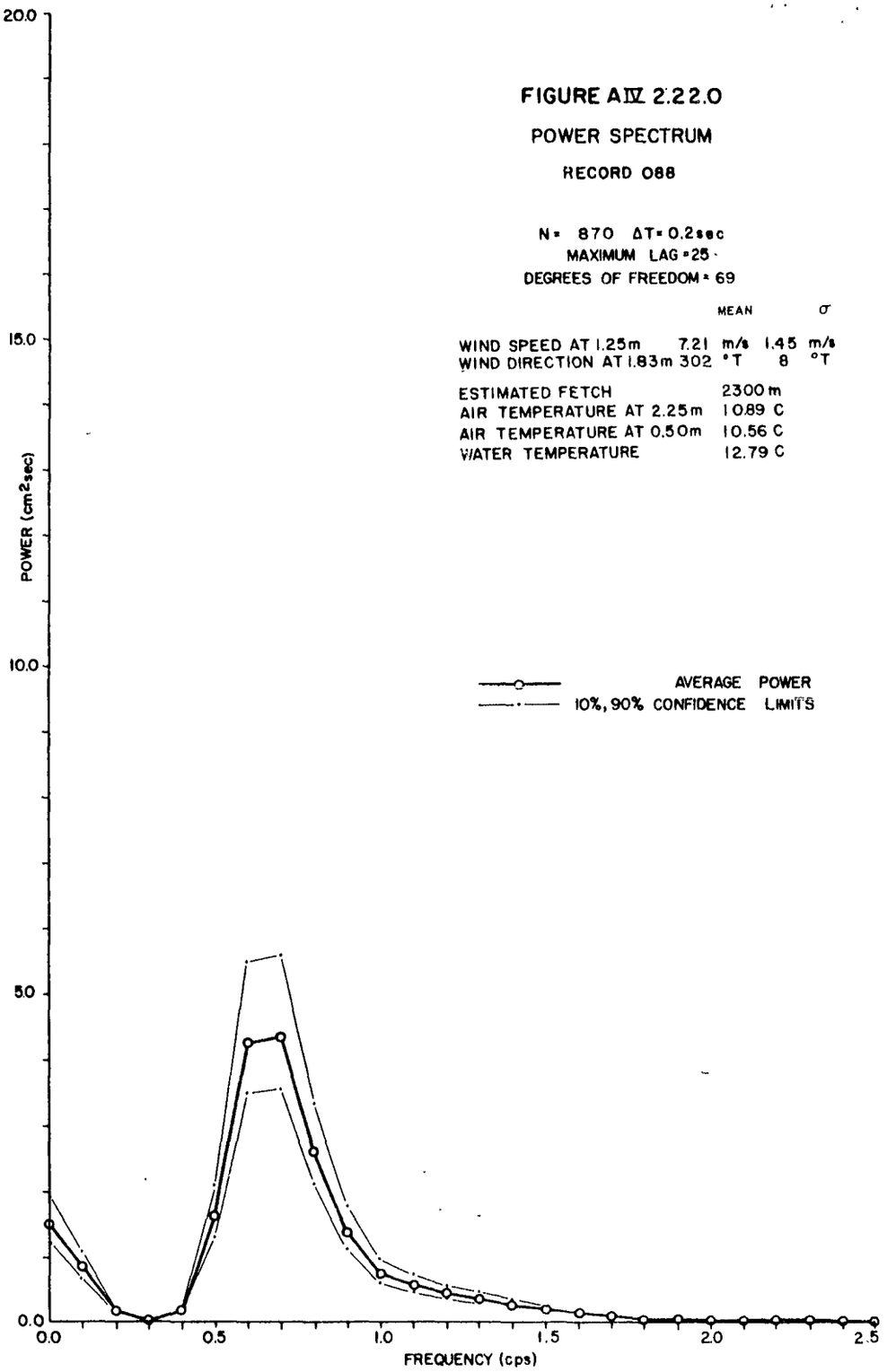
FIGURE AIV 2.22.0

POWER SPECTRUM

RECORD 088

N = 870 ΔT = 0.2sec
MAXIMUM LAG = 25
DEGREES OF FREEDOM = 69

		MEAN		σ
WIND SPEED AT 1.25m	7.21	m/s	1.45	m/s
WIND DIRECTION AT 1.83m	302	°T	8	°T
ESTIMATED FETCH	2300 m			
AIR TEMPERATURE AT 2.25m	10.89 C			
AIR TEMPERATURE AT 0.50m	10.56 C			
WATER TEMPERATURE	12.79 C			



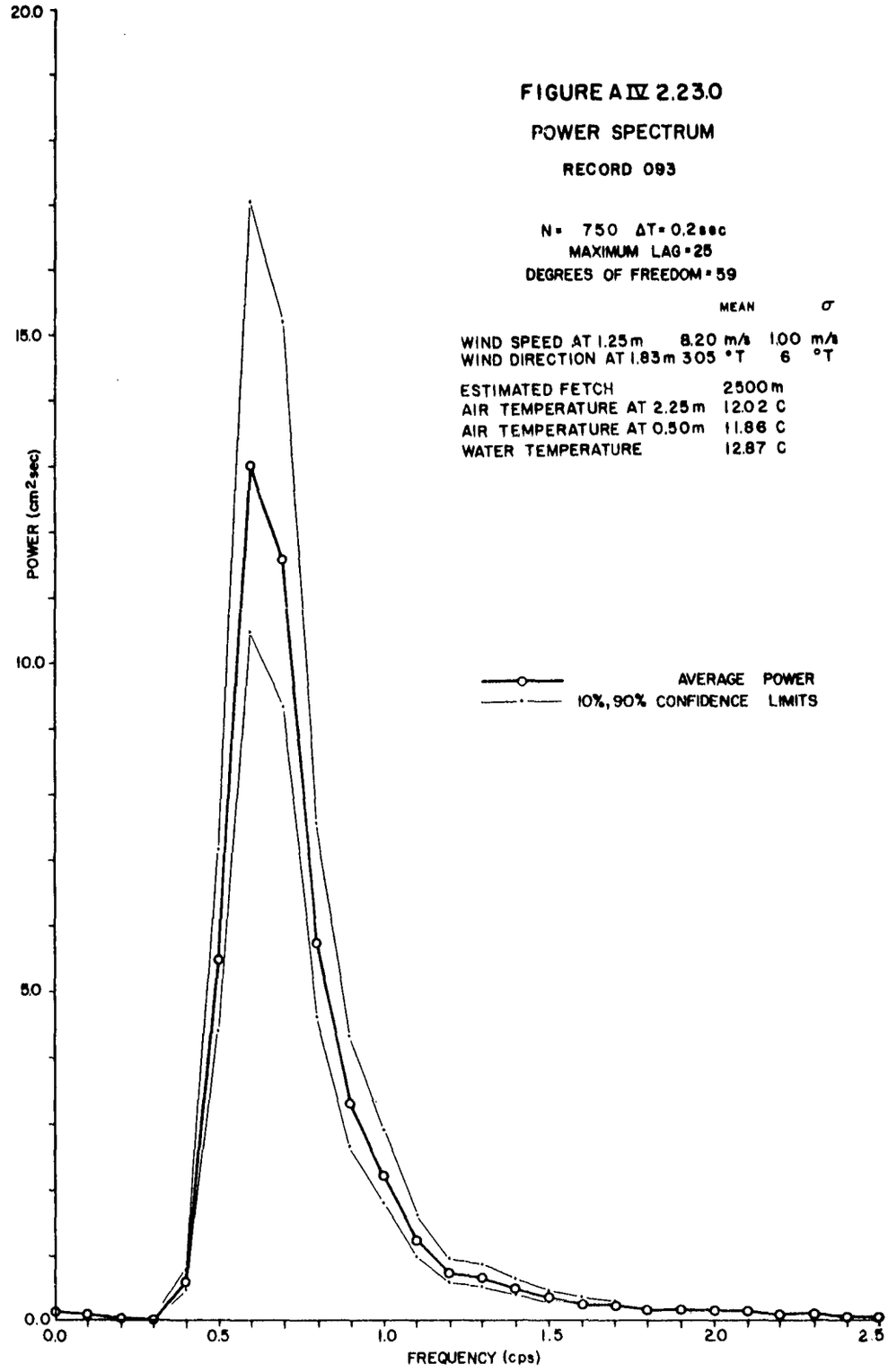


FIGURE A IV 2.23.0

POWER SPECTRUM

RECORD 093

N= 750 ΔT= 0.2 sec
MAXIMUM LAG = 25
DEGREES OF FREEDOM = 59

	MEAN	σ
WIND SPEED AT 1.25 m	8.20 m/s	1.00 m/s
WIND DIRECTION AT 1.83 m	305 °T	6 °T
ESTIMATED FETCH	2500 m	
AIR TEMPERATURE AT 2.25 m	12.02 C	
AIR TEMPERATURE AT 0.50 m	11.86 C	
WATER TEMPERATURE	12.87 C	

AVERAGE POWER
10%, 90% CONFIDENCE LIMITS

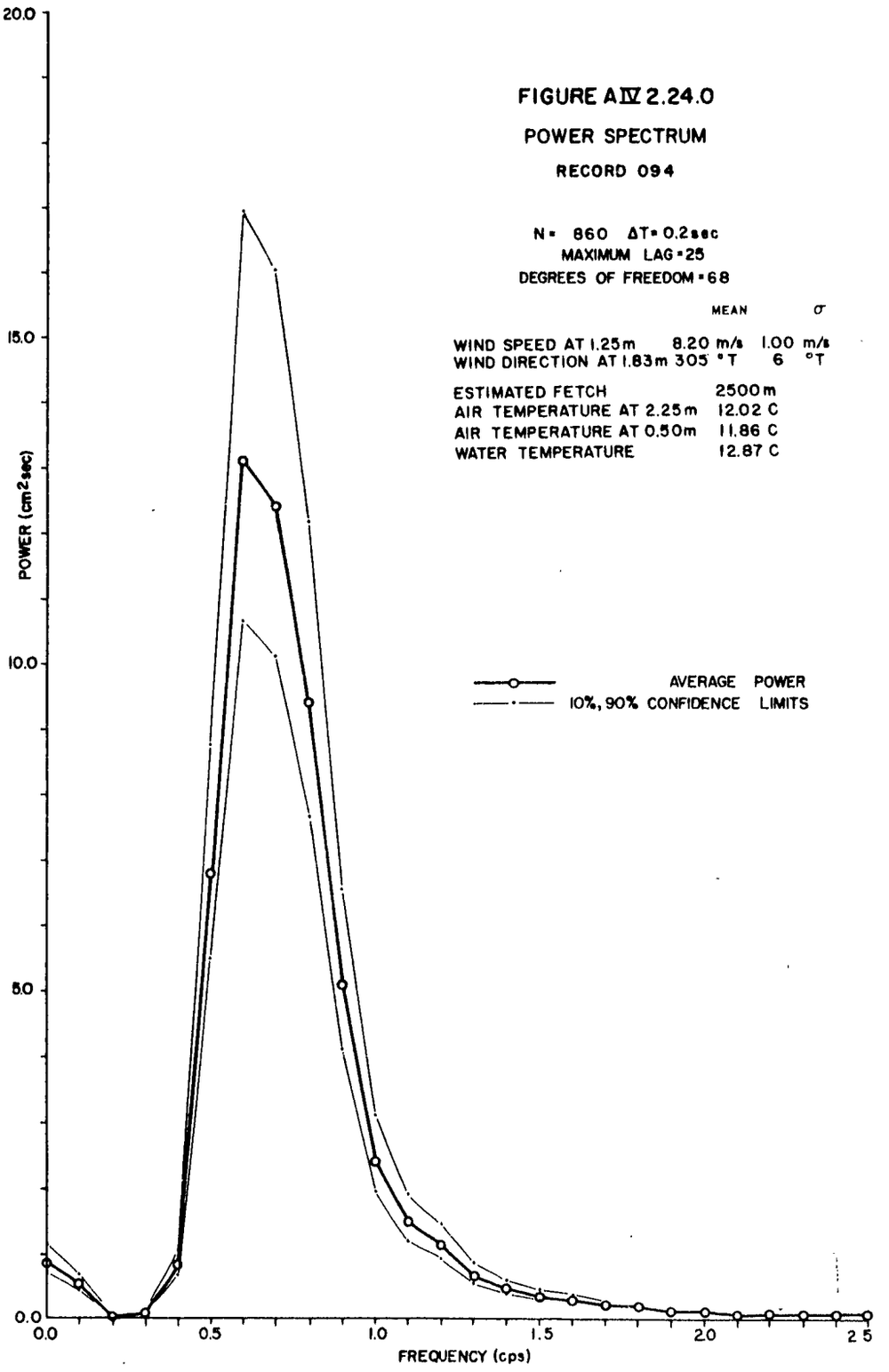


FIGURE AIV 2.24.0

POWER SPECTRUM

RECORD 094

N = 860 ΔT = 0.2sec
MAXIMUM LAG = 25
DEGREES OF FREEDOM = 68

	MEAN	σ
WIND SPEED AT 1.25m	8.20 m/s	1.00 m/s
WIND DIRECTION AT 1.83m	305 °T	6 °T
ESTIMATED FETCH	2500m	
AIR TEMPERATURE AT 2.25m	12.02 C	
AIR TEMPERATURE AT 0.50m	11.86 C	
WATER TEMPERATURE	12.87 C	

AVERAGE POWER
10%, 90% CONFIDENCE LIMITS

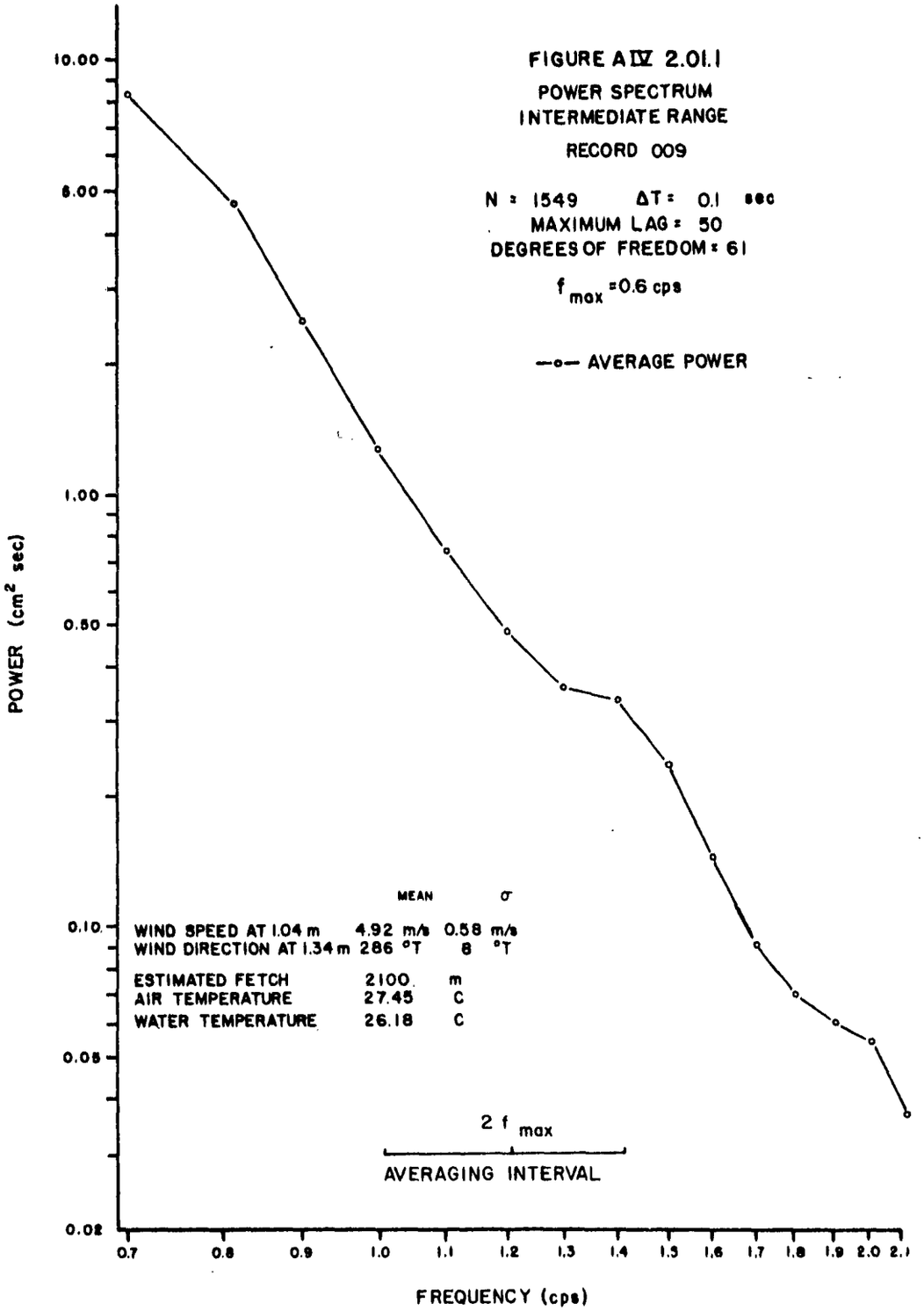


FIGURE A IV 2.01.1
POWER SPECTRUM
INTERMEDIATE RANGE
RECORD 009
N = 1549 ΔT = 0.1 sec
MAXIMUM LAG = 50
DEGREES OF FREEDOM = 61
f_{max} = 0.6 cps
—o— AVERAGE POWER
MEAN σ
WIND SPEED AT 1.04 m 4.92 m/s 0.58 m/s
WIND DIRECTION AT 1.34 m 286 °T 8 °T
ESTIMATED FETCH 2100 m
AIR TEMPERATURE 27.45 C
WATER TEMPERATURE 26.18 C
2 f_{max}
AVERAGING INTERVAL
POWER (cm² sec)
10.00
5.00
1.00
0.50
0.10
0.05
0.02
0.7 0.8 0.9 1.0 1.1 1.2 1.3 1.4 1.5 1.6 1.7 1.8 1.9 2.0 2.1
FREQUENCY (cps)

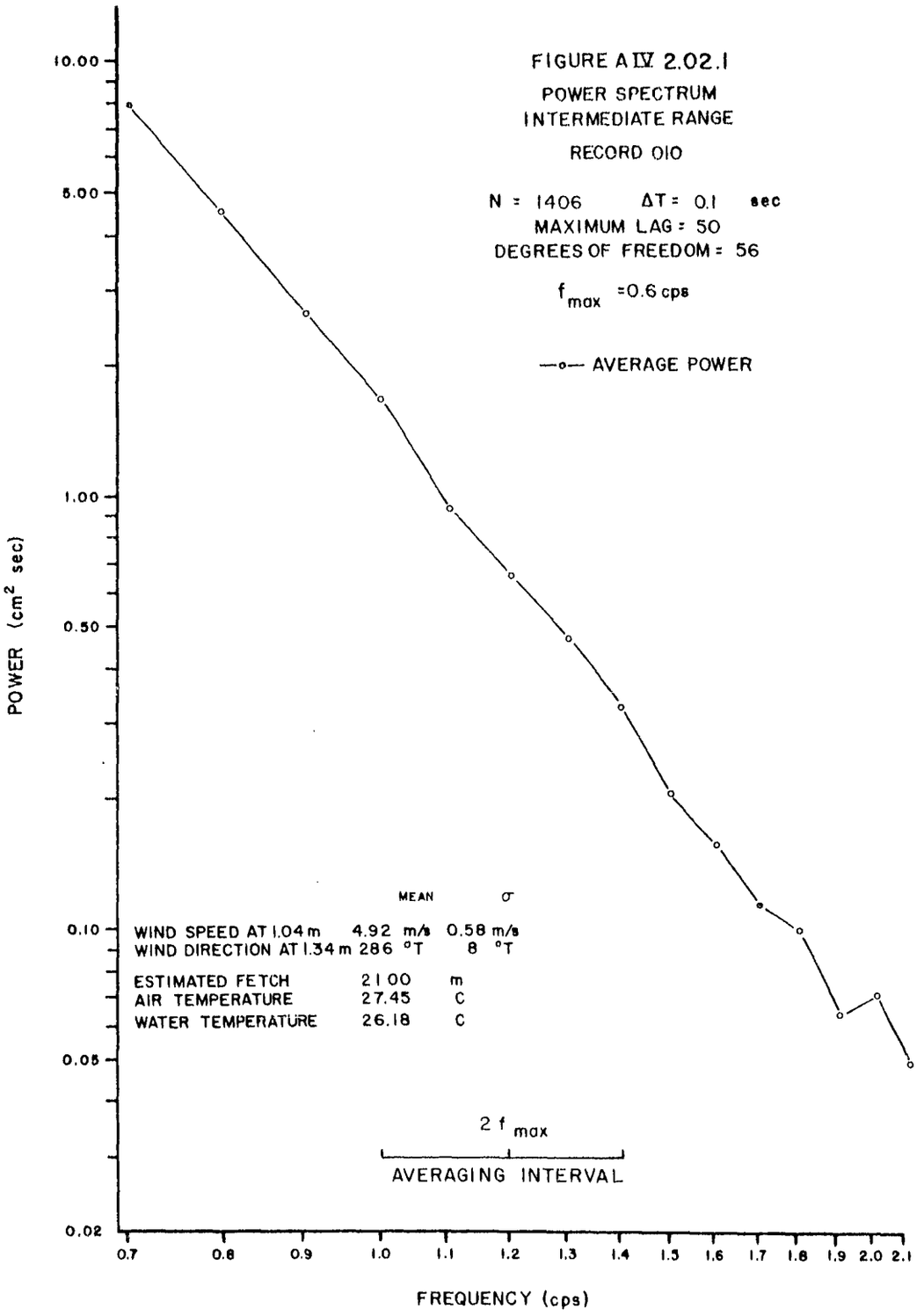


FIGURE A IV 2.02.1
POWER SPECTRUM
INTERMEDIATE RANGE
RECORD 010
N = 1406 ΔT = 0.1 sec
MAXIMUM LAG = 50
DEGREES OF FREEDOM = 56
f_{max} =0.6 cps
—o— AVERAGE POWER
POWER (cm² sec)
10.00
5.00
1.00
0.50
0.10
0.05
0.02
MEAN σ
WIND SPEED AT 1.04 m 4.92 m/s 0.58 m/s
WIND DIRECTION AT 1.34 m 286 °T 8 °T
ESTIMATED FETCH 2100 m
AIR TEMPERATURE 27.45 C
WATER TEMPERATURE 26.18 C
2 f_{max}
AVERAGING INTERVAL
0.7 0.8 0.9 1.0 1.1 1.2 1.3 1.4 1.5 1.6 1.7 1.8 1.9 2.0 2.1
FREQUENCY (cps)

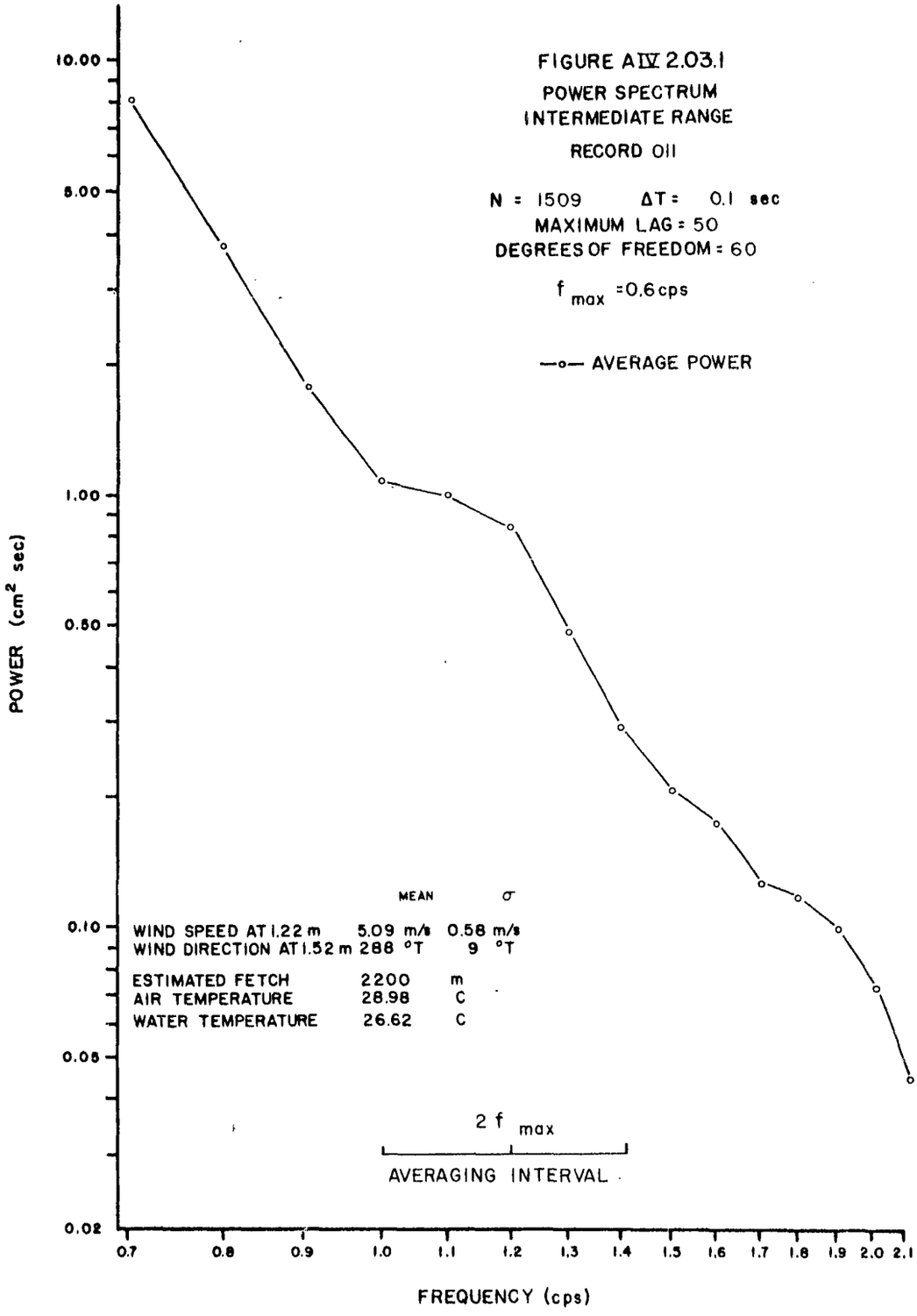


FIGURE AIV 2.03.1
POWER SPECTRUM
INTERMEDIATE RANGE
RECORD 011
N = 1509 ΔT = 0.1 sec
MAXIMUM LAG = 50
DEGREES OF FREEDOM = 60
f max =0.6 cps
—o— AVERAGE POWER
POWER (cm² sec)
10.00
5.00
1.00
0.50
0.10
0.05
0.02
MEAN σ
WIND SPEED AT 1.22 m 5.09 m/s 0.58 m/s
WIND DIRECTION AT 1.52 m 288 °T 9 °T
ESTIMATED FETCH 2200 m
AIR TEMPERATURE 28.98 C
WATER TEMPERATURE 26.62 C
2 f max
AVERAGING INTERVAL
0.7 0.8 0.9 1.0 1.1 1.2 1.3 1.4 1.5 1.6 1.7 1.8 1.9 2.0 2.1
FREQUENCY (cps)

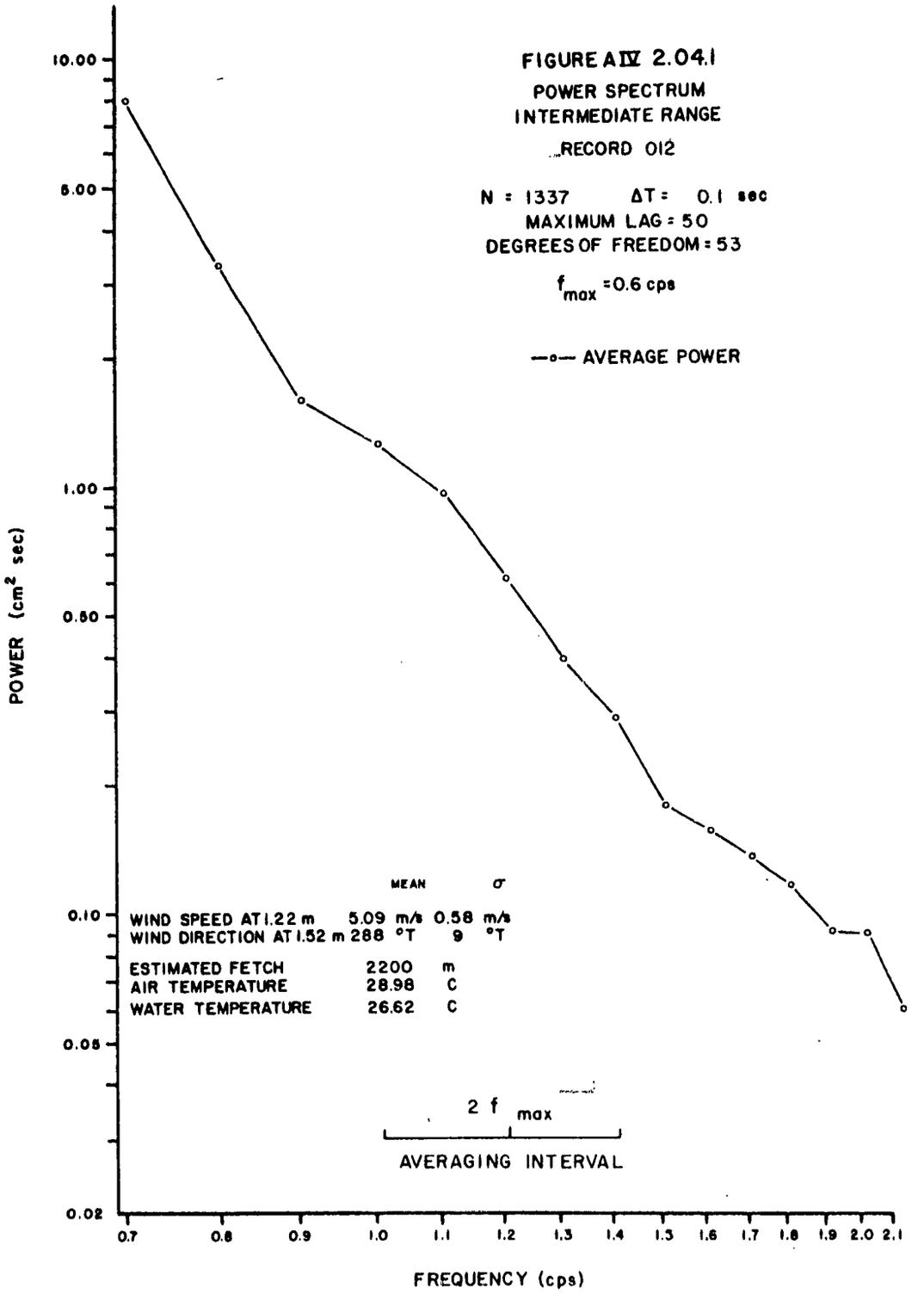


FIGURE AIV 2.04.1
POWER SPECTRUM
INTERMEDIATE RANGE
RECORD 012
N = 1337 ΔT = 0.1 sec
MAXIMUM LAG = 50
DEGREES OF FREEDOM = 53
f_{max} = 0.6 cps
—o— AVERAGE POWER
MEAN σ
WIND SPEED AT 1.22 m 5.09 m/s 0.58 m/s
WIND DIRECTION AT 1.52 m 288 °T 9 °T
ESTIMATED FETCH 2200 m
AIR TEMPERATURE 28.98 C
WATER TEMPERATURE 26.62 C
2 f max
AVERAGING INTERVAL
POWER (cm² sec)
10.00
5.00
1.00
0.50
0.10
0.05
0.02
0.7 0.8 0.9 1.0 1.1 1.2 1.3 1.4 1.5 1.6 1.7 1.8 1.9 2.0 2.1
FREQUENCY (cps)

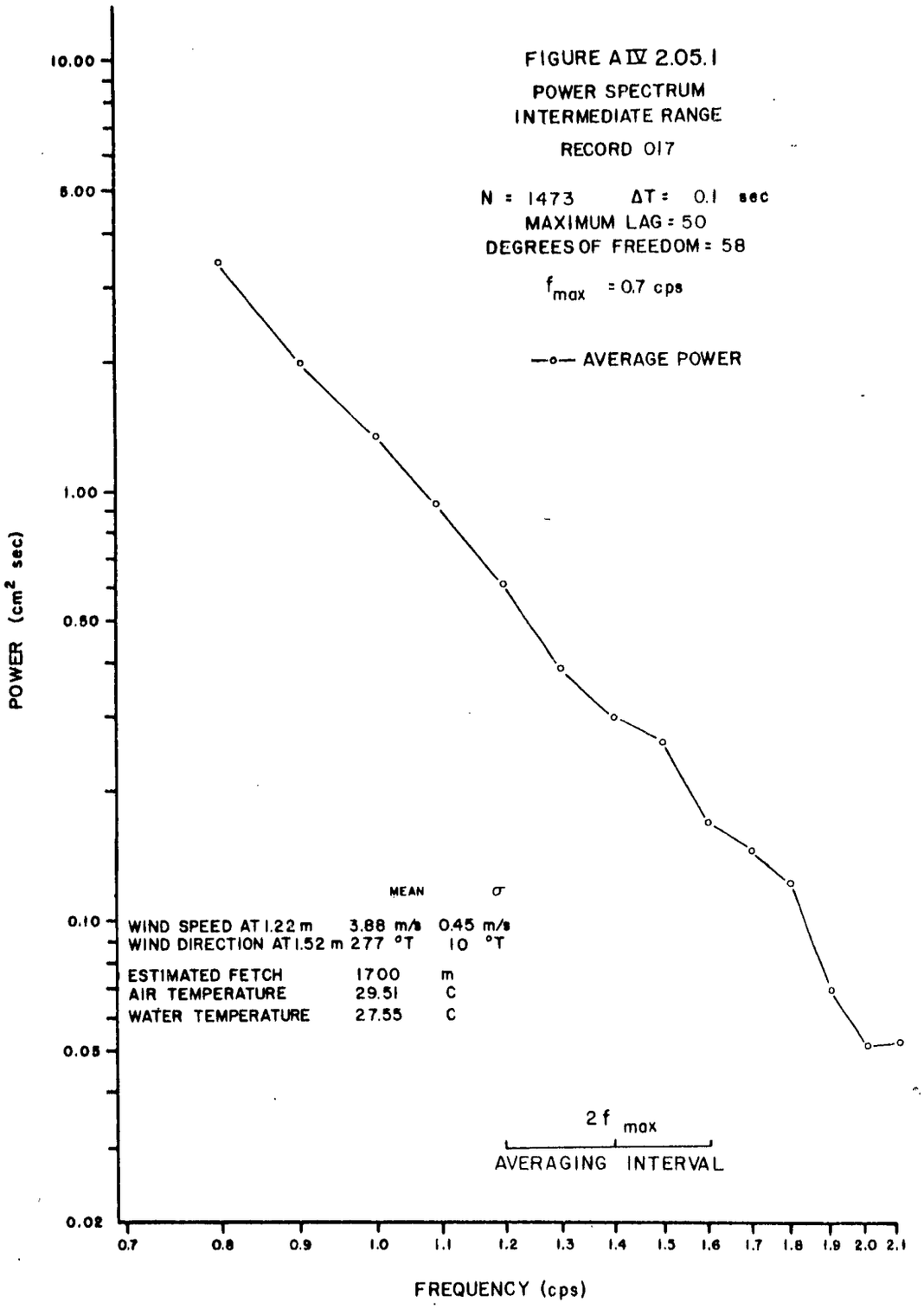


FIGURE A IV 2.05.1
POWER SPECTRUM
INTERMEDIATE RANGE
RECORD 017
N = 1473 ΔT = 0.1 sec
MAXIMUM LAG = 50
DEGREES OF FREEDOM = 58
f_{max} = 0.7 cps
—o— AVERAGE POWER
MEAN σ
WIND SPEED AT 1.22 m 3.88 m/s 0.45 m/s
WIND DIRECTION AT 1.52 m 277 °T 10 °T
ESTIMATED FETCH 1700 m
AIR TEMPERATURE 29.51 C
WATER TEMPERATURE 27.55 C
2 f max
AVERAGING INTERVAL
POWER (cm² sec)
10.00
5.00
1.00
0.50
0.10
0.05
0.02
0.7
0.8
0.9
1.0
1.1
1.2
1.3
1.4
1.5
1.6
1.7
1.8
1.9
2.0
2.1
FREQUENCY (cps)

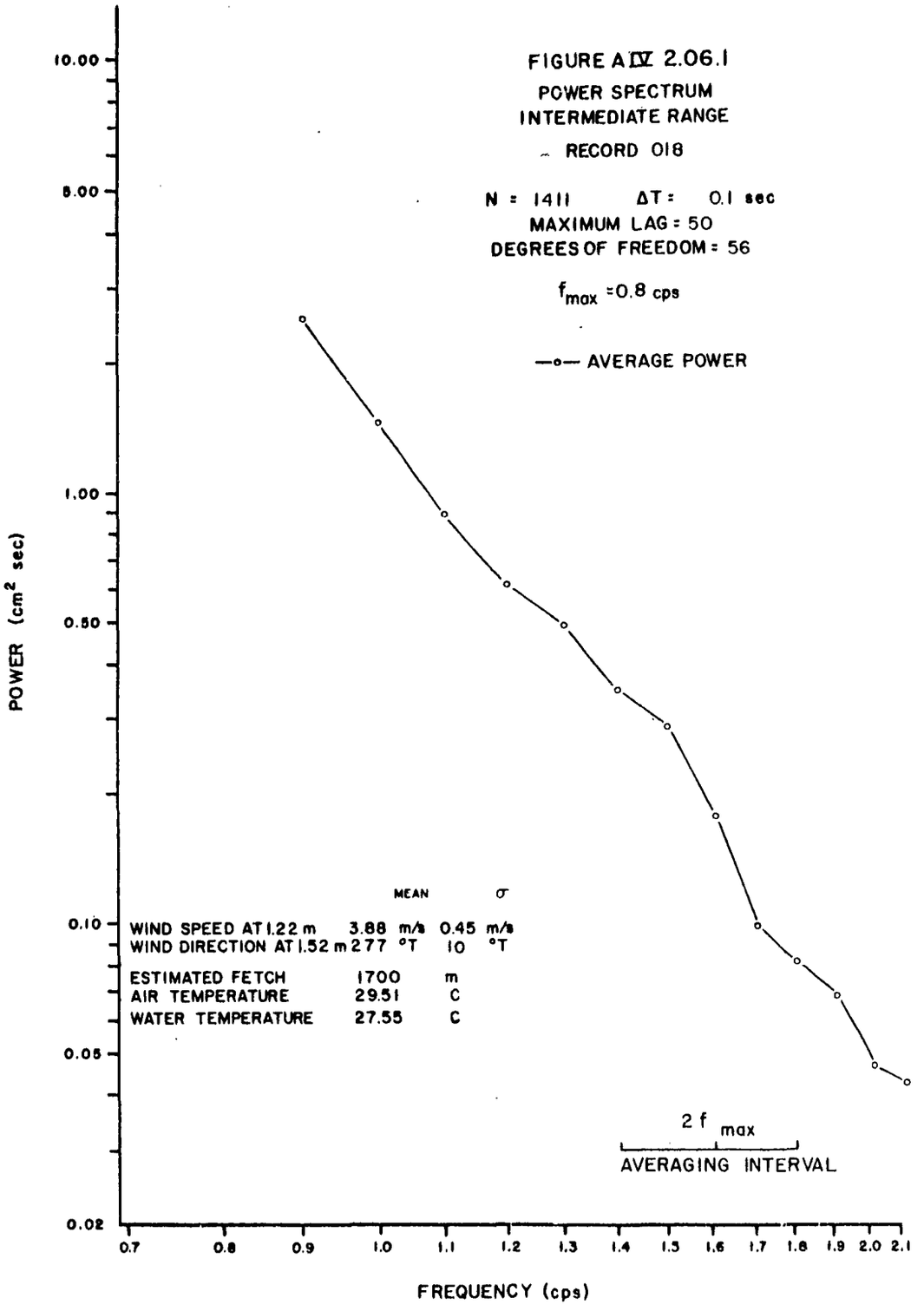


FIGURE A IV 2.06.1
POWER SPECTRUM
INTERMEDIATE RANGE
RECORD 018
N = 1411 ΔT = 0.1 sec
MAXIMUM LAG = 50
DEGREES OF FREEDOM = 56
f_{max} = 0.8 cps
—o— AVERAGE POWER
MEAN σ
WIND SPEED AT 1.22 m 3.88 m/s 0.45 m/s
WIND DIRECTION AT 1.52 m 277 °T 10 °T
ESTIMATED FETCH 1700 m
AIR TEMPERATURE 29.51 C
WATER TEMPERATURE 27.55 C
2 f max
AVERAGING INTERVAL
POWER (cm² sec)
10.00
5.00
1.00
0.50
0.10
0.05
0.02
0.7 0.8 0.9 1.0 1.1 1.2 1.3 1.4 1.5 1.6 1.7 1.8 1.9 2.0 2.1
FREQUENCY (cps)

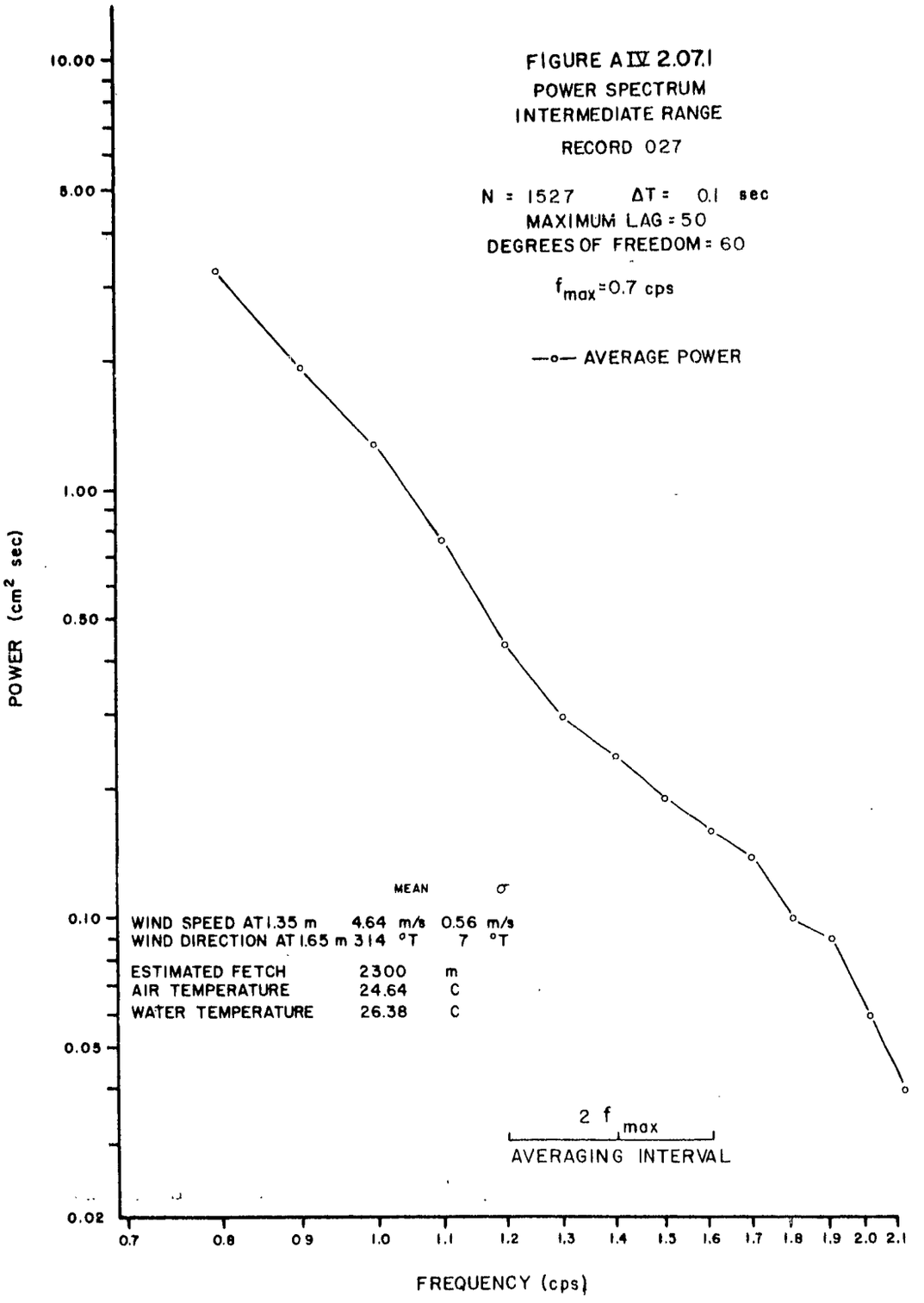


FIGURE A IV 2.07.1
POWER SPECTRUM
INTERMEDIATE RANGE
RECORD 027
N = 1527 ΔT = 0.1 sec
MAXIMUM LAG = 50
DEGREES OF FREEDOM = 60
f_{max}=0.7 cps
—o— AVERAGE POWER
MEAN σ
WIND SPEED AT 1.35 m 4.64 m/s 0.56 m/s
WIND DIRECTION AT 1.65 m 314 °T 7 °T
ESTIMATED FETCH 2300 m
AIR TEMPERATURE 24.64 C
WATER TEMPERATURE 26.38 C
2 f max
AVERAGING INTERVAL
POWER (cm² sec)
10.00
5.00
1.00
0.50
0.10
0.05
0.02
0.7 0.8 0.9 1.0 1.1 1.2 1.3 1.4 1.5 1.6 1.7 1.8 1.9 2.0 2.1
FREQUENCY (cps)

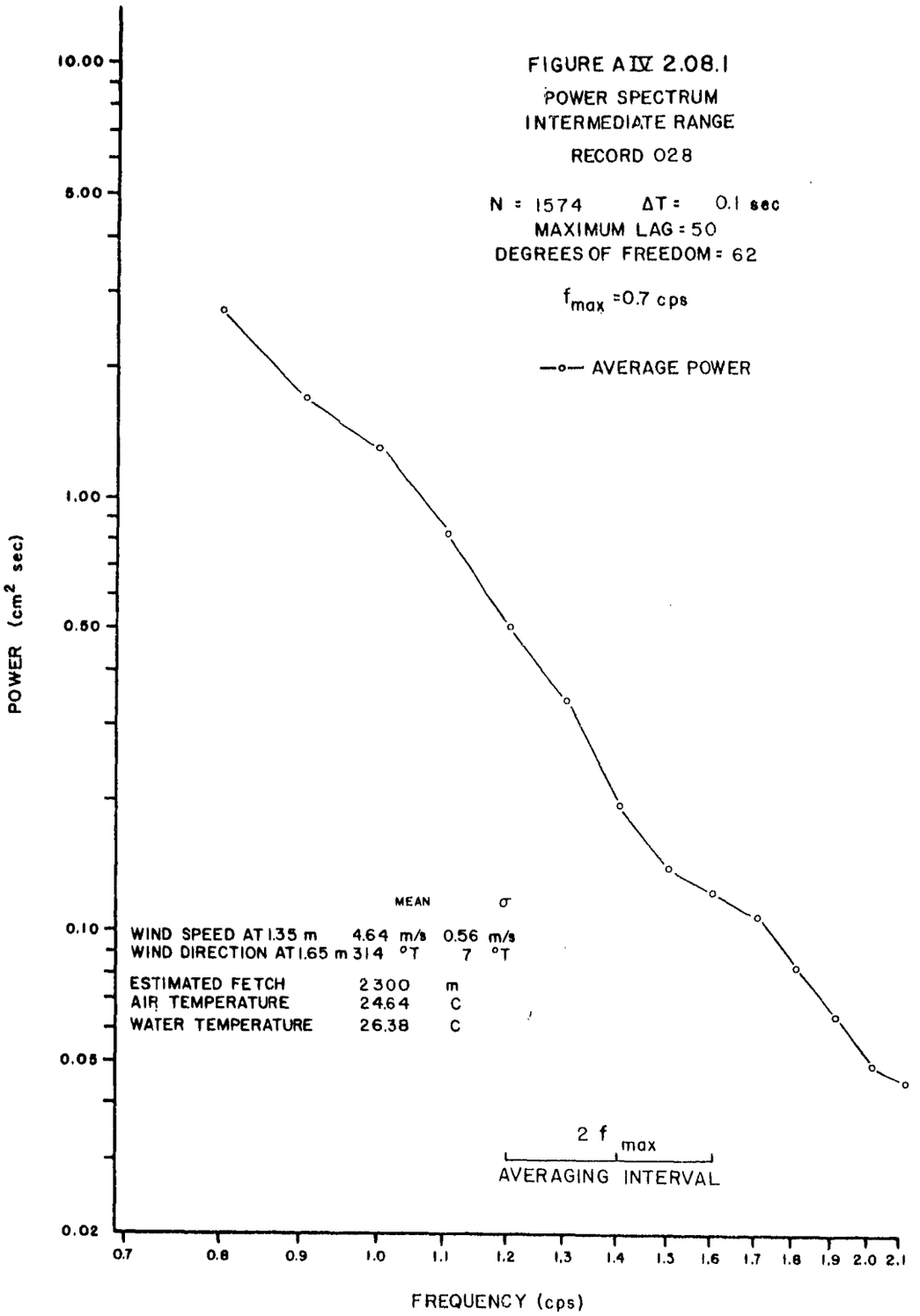


FIGURE A IV 2.08.1
POWER SPECTRUM
INTERMEDIATE RANGE
RECORD 028
N = 1574 ΔT = 0.1 sec
MAXIMUM LAG = 50
DEGREES OF FREEDOM = 62
f_{max} = 0.7 cps
—o— AVERAGE POWER
POWER (cm² sec)
10.00
5.00
1.00
0.50
0.10
0.05
0.02
MEAN σ
WIND SPEED AT 1.35 m 4.64 m/s 0.56 m/s
WIND DIRECTION AT 1.65 m 314 °T 7 °T
ESTIMATED FETCH 2300 m
AIR TEMPERATURE 24.64 C
WATER TEMPERATURE 26.38 C
2 f max
AVERAGING INTERVAL
0.7 0.8 0.9 1.0 1.1 1.2 1.3 1.4 1.5 1.6 1.7 1.8 1.9 2.0 2.1
FREQUENCY (cps)

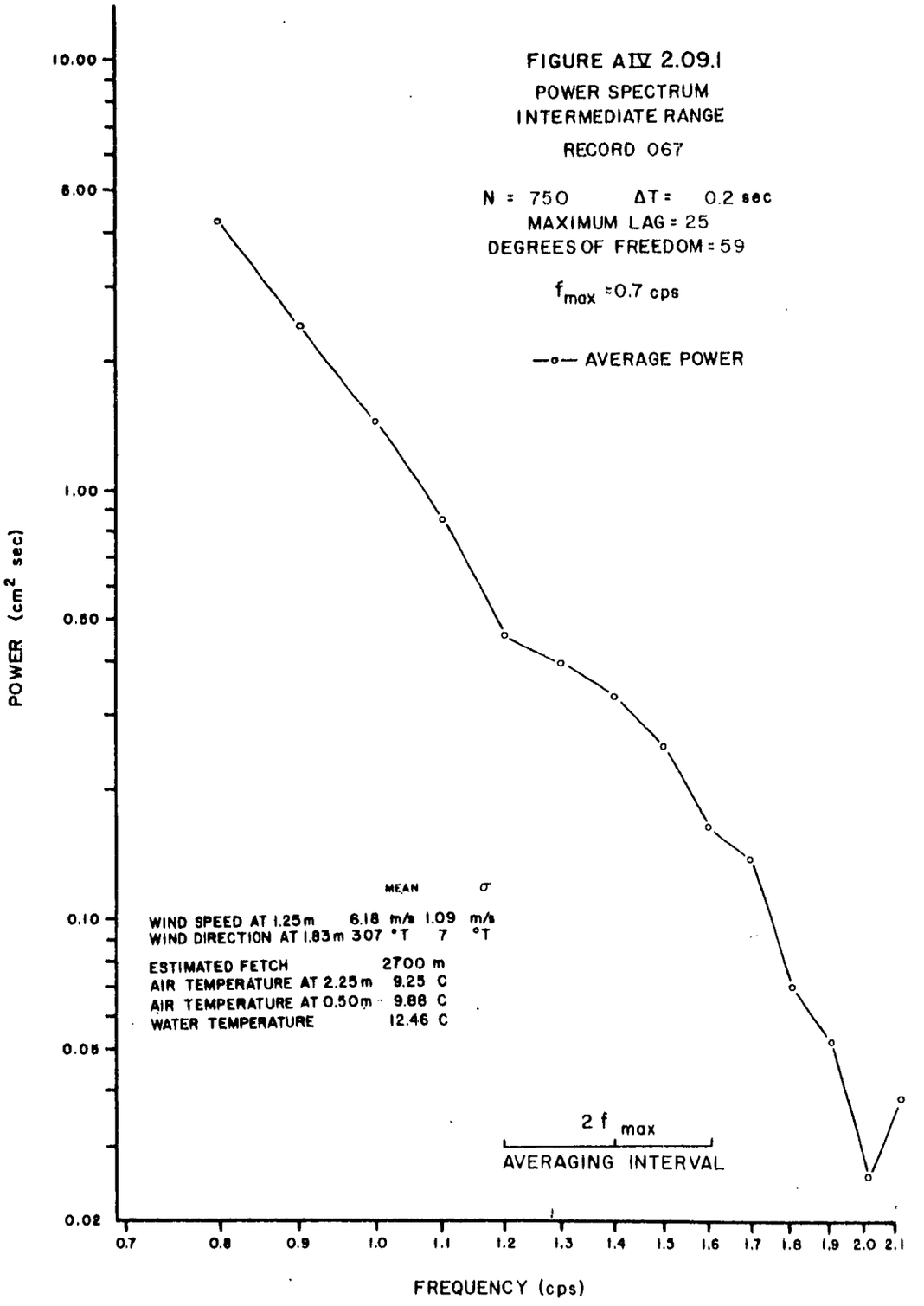


FIGURE AIV 2.09.1
POWER SPECTRUM
INTERMEDIATE RANGE
RECORD 067
N = 750 ΔT = 0.2 sec
MAXIMUM LAG = 25
DEGREES OF FREEDOM = 59
f_{max} = 0.7 cps
—o— AVERAGE POWER
MEAN σ
WIND SPEED AT 1.25m 6.18 m/s 1.09 m/s
WIND DIRECTION AT 1.83m 307 °T 7 °T
ESTIMATED FETCH 2700 m
AIR TEMPERATURE AT 2.25m 9.25 C
AIR TEMPERATURE AT 0.50m 9.88 C
WATER TEMPERATURE 12.46 C
2 f max
AVERAGING INTERVAL
POWER (cm² sec)
10.00
5.00
1.00
0.50
0.10
0.05
0.02
0.7 0.8 0.9 1.0 1.1 1.2 1.3 1.4 1.5 1.6 1.7 1.8 1.9 2.0 2.1
FREQUENCY (cps)

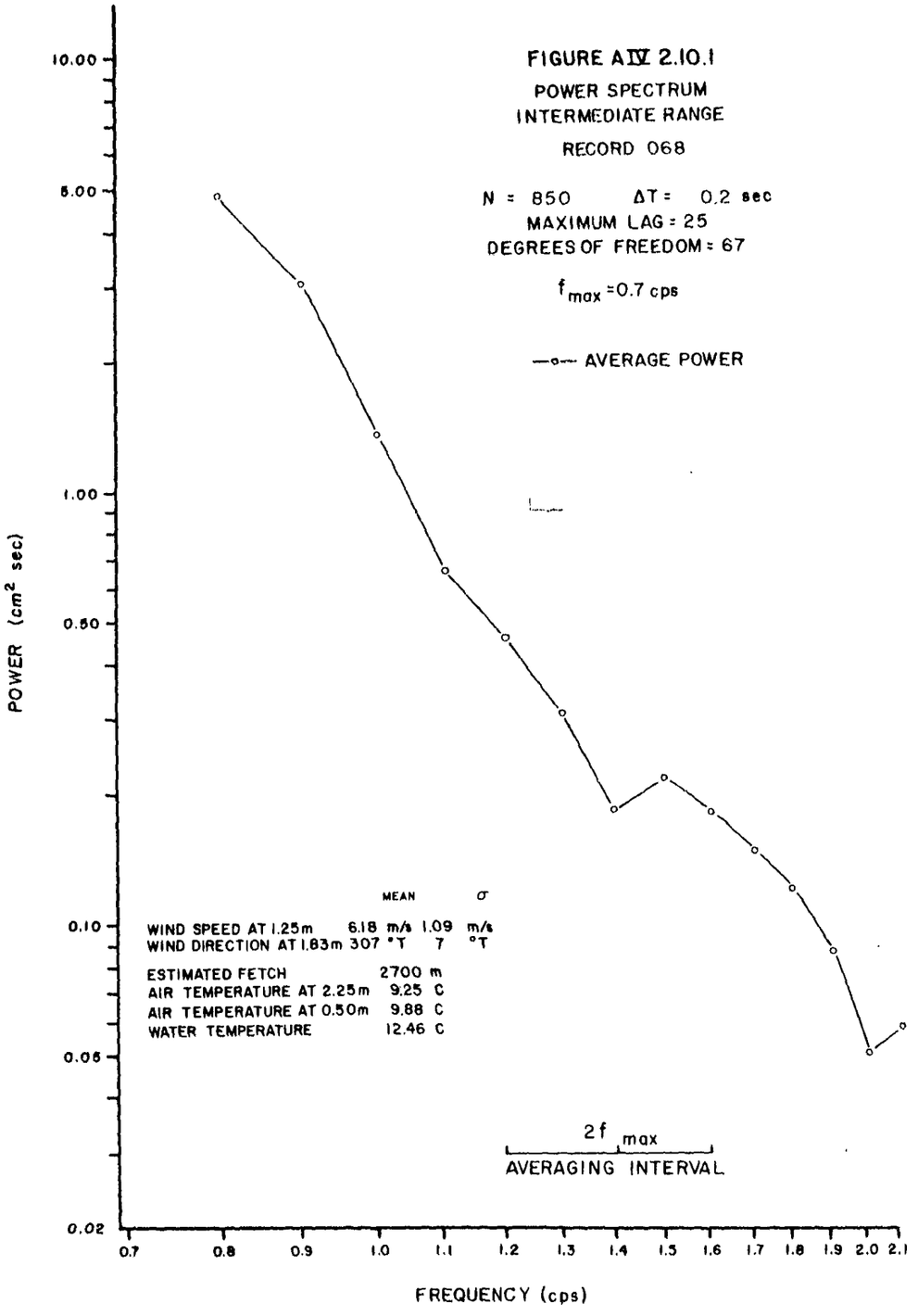


FIGURE AIV 2.10.1
POWER SPECTRUM
INTERMEDIATE RANGE
RECORD 068
N = 850 ΔT = 0.2 sec
MAXIMUM LAG = 25
DEGREES OF FREEDOM = 67
f_{max} = 0.7 cps
—o— AVERAGE POWER
MEAN σ
WIND SPEED AT 1.25m 6.18 m/s 1.09 m/s
WIND DIRECTION AT 1.83m 307 °T 7 °T
ESTIMATED FETCH 2700 m
AIR TEMPERATURE AT 2.25m 9.25 C
AIR TEMPERATURE AT 0.50m 9.88 C
WATER TEMPERATURE 12.46 C
2f max
AVERAGING INTERVAL
POWER (cm² sec)
10.00
5.00
1.00
0.50
0.10
0.05
0.02
0.7 0.8 0.9 1.0 1.1 1.2 1.3 1.4 1.5 1.6 1.7 1.8 1.9 2.0 2.1
FREQUENCY (cps)

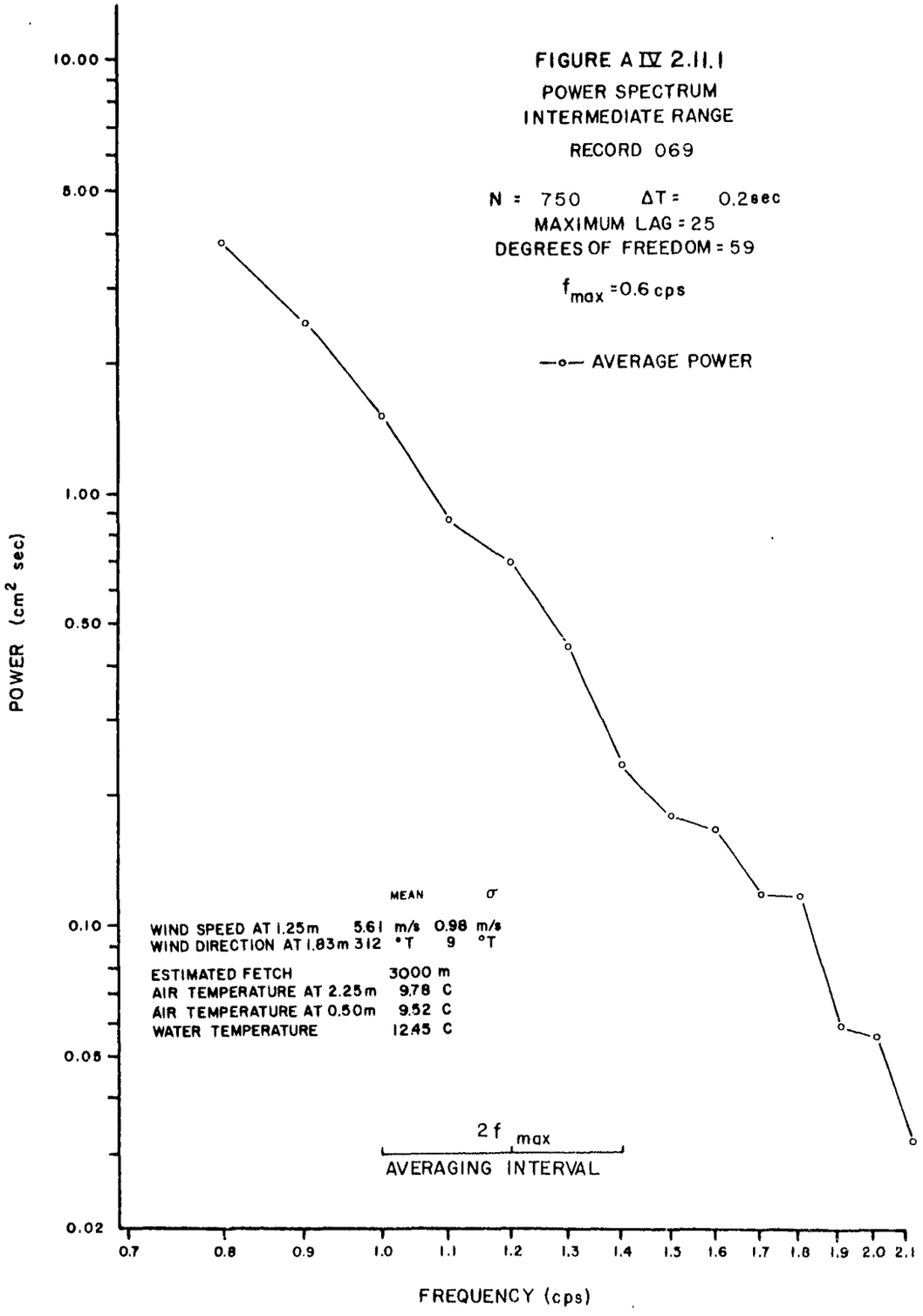


FIGURE A IV 2.11.1
POWER SPECTRUM
INTERMEDIATE RANGE
RECORD 069
N = 750 ΔT = 0.2sec
MAXIMUM LAG = 25
DEGREES OF FREEDOM = 59
f_{max} = 0.6 cps
—o— AVERAGE POWER
MEAN σ
WIND SPEED AT 1.25m 5.61 m/s 0.98 m/s
WIND DIRECTION AT 1.83m 312 °T 9 °T
ESTIMATED FETCH 3000 m
AIR TEMPERATURE AT 2.25m 9.78 C
AIR TEMPERATURE AT 0.50m 9.52 C
WATER TEMPERATURE 12.45 C
2 f_{max}
AVERAGING INTERVAL
POWER (cm² sec)
10.00
5.00
1.00
0.50
0.10
0.05
0.02
0.7
0.8
0.9
1.0
1.1
1.2
1.3
1.4
1.5
1.6
1.7
1.8
1.9
2.0
2.1
FREQUENCY (cps)

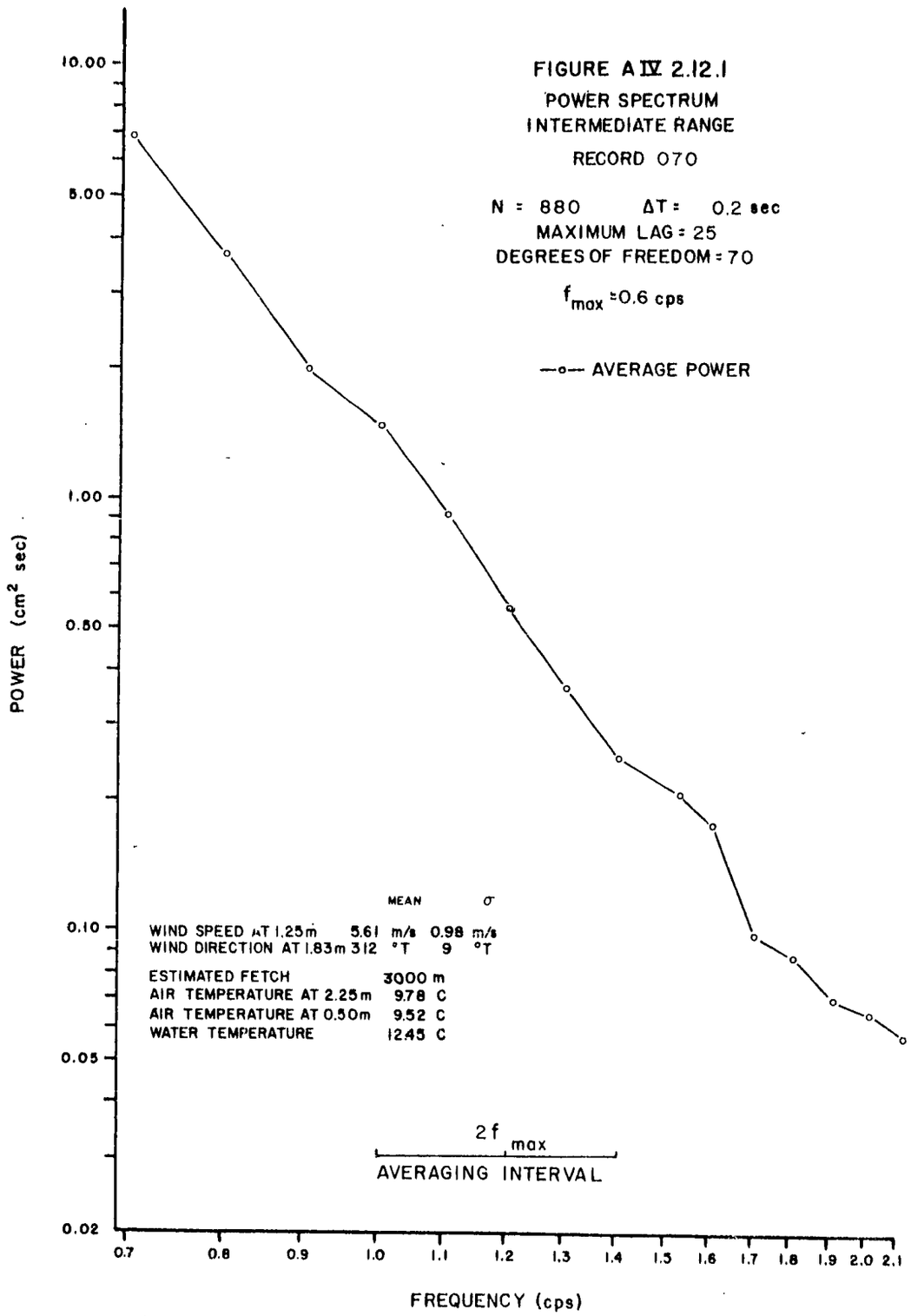


FIGURE A IV 2.12.1
POWER SPECTRUM
INTERMEDIATE RANGE
RECORD 070
N = 880 ΔT = 0.2 sec
MAXIMUM LAG = 25
DEGREES OF FREEDOM = 70
f_{max} ≈0.6 cps
—o— AVERAGE POWER
POWER (cm² sec)
10.00
5.00
1.00
0.50
0.10
0.05
0.02
MEAN σ
WIND SPEED AT 1.25m 5.61 m/s 0.98 m/s
WIND DIRECTION AT 1.83m 312 °T 9 °T
ESTIMATED FETCH 3000 m
AIR TEMPERATURE AT 2.25m 9.78 C
AIR TEMPERATURE AT 0.50m 9.52 C
WATER TEMPERATURE 12.45 C
2f max
AVERAGING INTERVAL
0.7 0.8 0.9 1.0 1.1 1.2 1.3 1.4 1.5 1.6 1.7 1.8 1.9 2.0 2.1
FREQUENCY (cps)

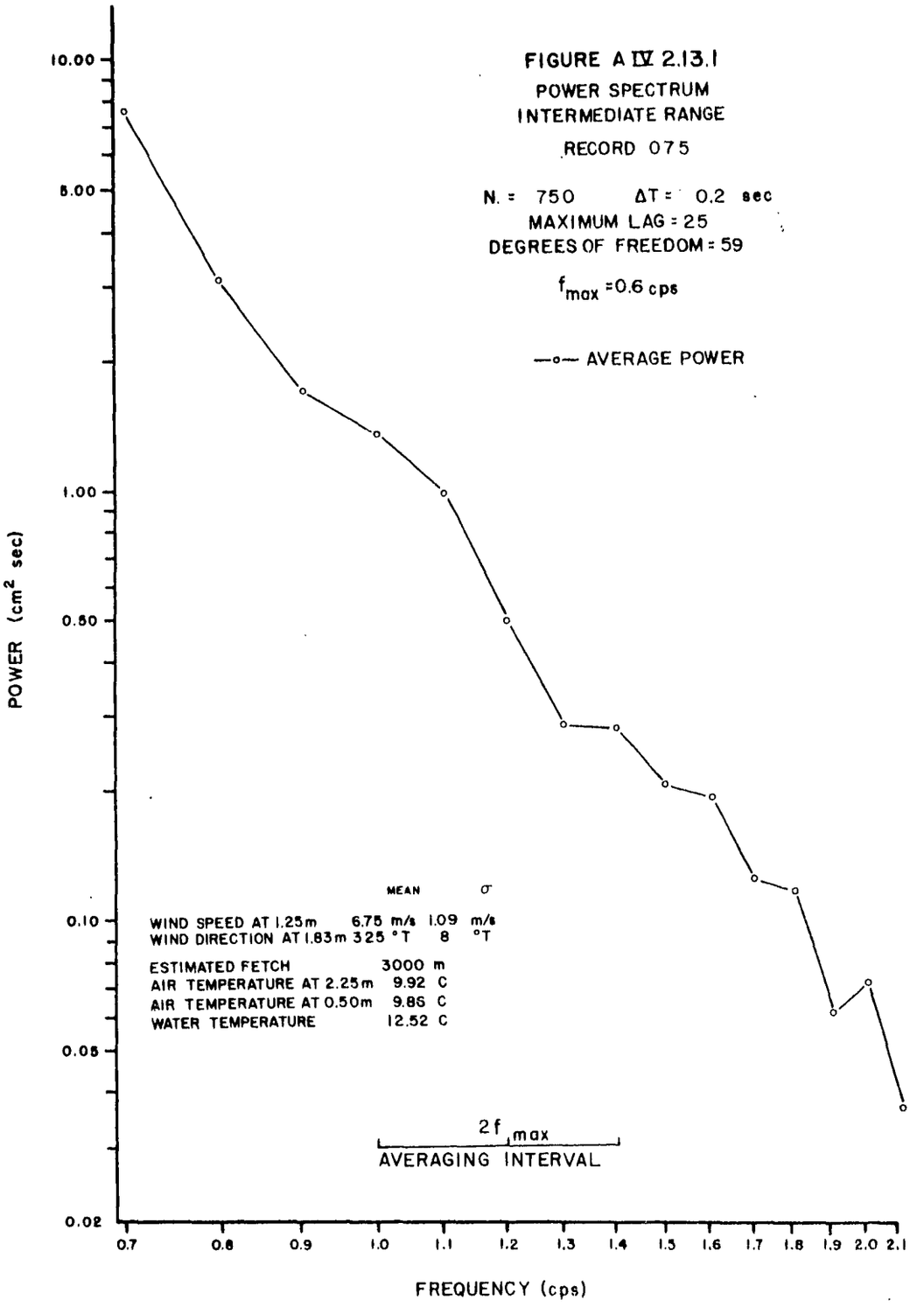


FIGURE A IV 2.13.1
POWER SPECTRUM
INTERMEDIATE RANGE
RECORD 075
N. = 750 ΔT = 0.2 sec
MAXIMUM LAG = 25
DEGREES OF FREEDOM = 59
f_{max} = 0.6 cps
—o— AVERAGE POWER
MEAN σ
WIND SPEED AT 1.25m 6.75 m/s 1.09 m/s
WIND DIRECTION AT 1.83m 325 °T 8 °T
ESTIMATED FETCH 3000 m
AIR TEMPERATURE AT 2.25m 9.92 C
AIR TEMPERATURE AT 0.50m 9.86 C
WATER TEMPERATURE 12.52 C
2f max
AVERAGING INTERVAL
POWER (cm² sec)
10.00
5.00
1.00
0.50
0.10
0.05
0.02
0.7
0.8
0.9
1.0
1.1
1.2
1.3
1.4
1.5
1.6
1.7
1.8
1.9
2.0
2.1
FREQUENCY (cps)

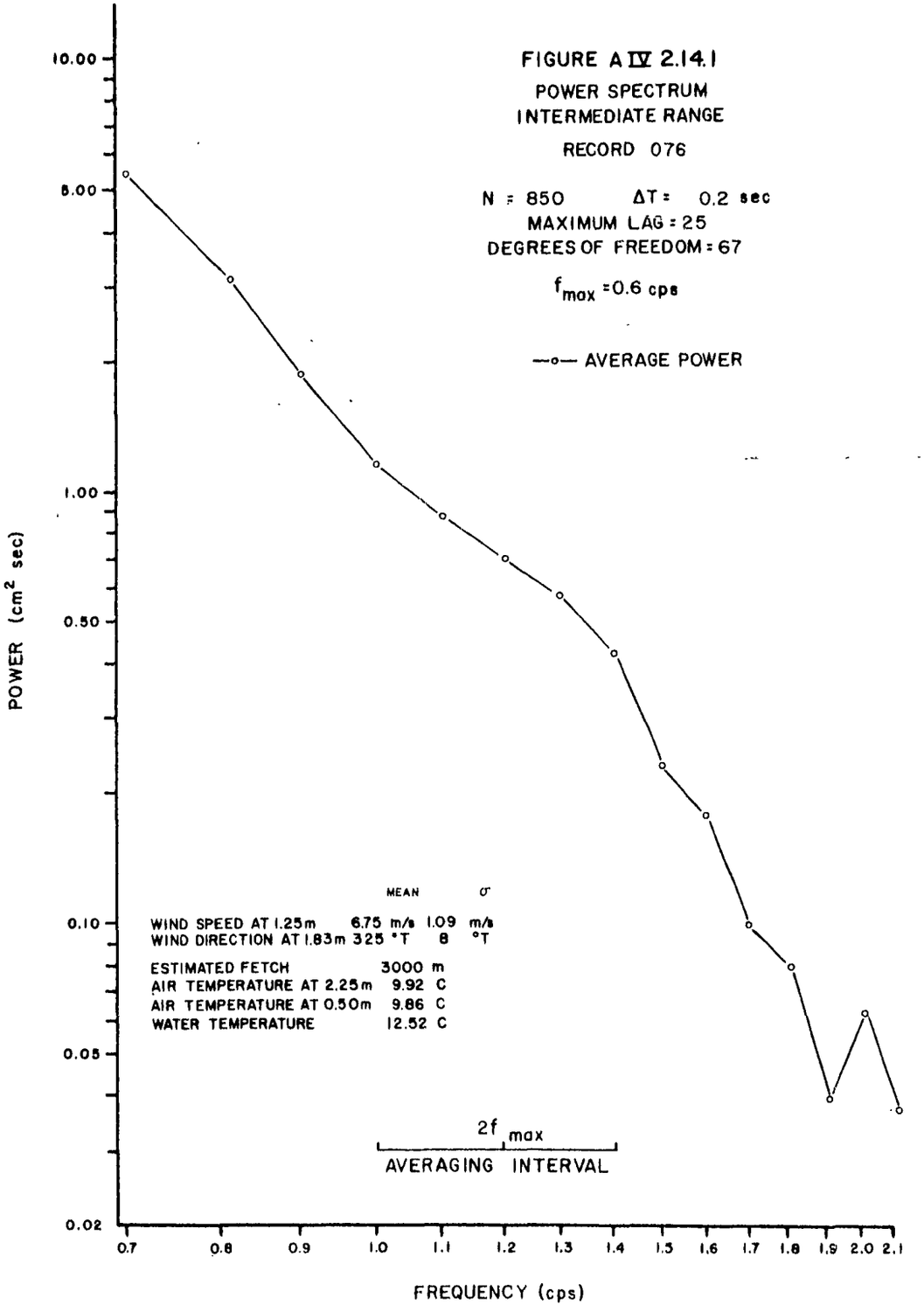


FIGURE A IV 2.14.1
POWER SPECTRUM
INTERMEDIATE RANGE
RECORD 076
N = 850 ΔT = 0.2 sec
MAXIMUM LAG = 25
DEGREES OF FREEDOM = 67
f_{max} = 0.6 cps
—o— AVERAGE POWER
MEAN σ
WIND SPEED AT 1.25m 6.75 m/s 1.09 m/s
WIND DIRECTION AT 1.83m 325 °T 8 °T
ESTIMATED FETCH 3000 m
AIR TEMPERATURE AT 2.25m 9.92 C
AIR TEMPERATURE AT 0.50m 9.86 C
WATER TEMPERATURE 12.52 C
2f max
AVERAGING INTERVAL
POWER (cm² sec)
10.00
5.00
1.00
0.50
0.10
0.05
0.02
0.7
0.8
0.9
1.0
1.1
1.2
1.3
1.4
1.5
1.6
1.7
1.8
1.9
2.0
2.1
FREQUENCY (cps)

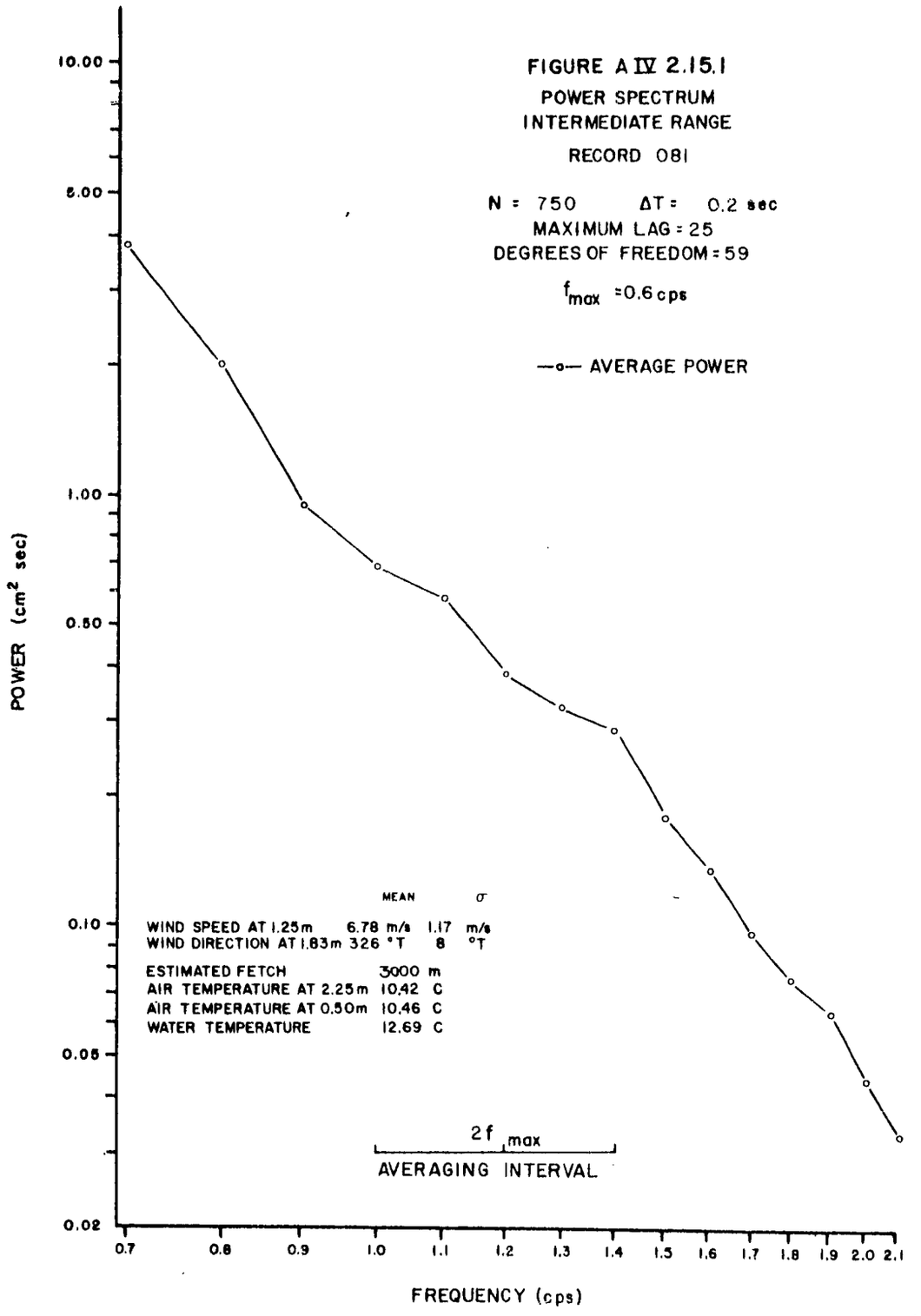


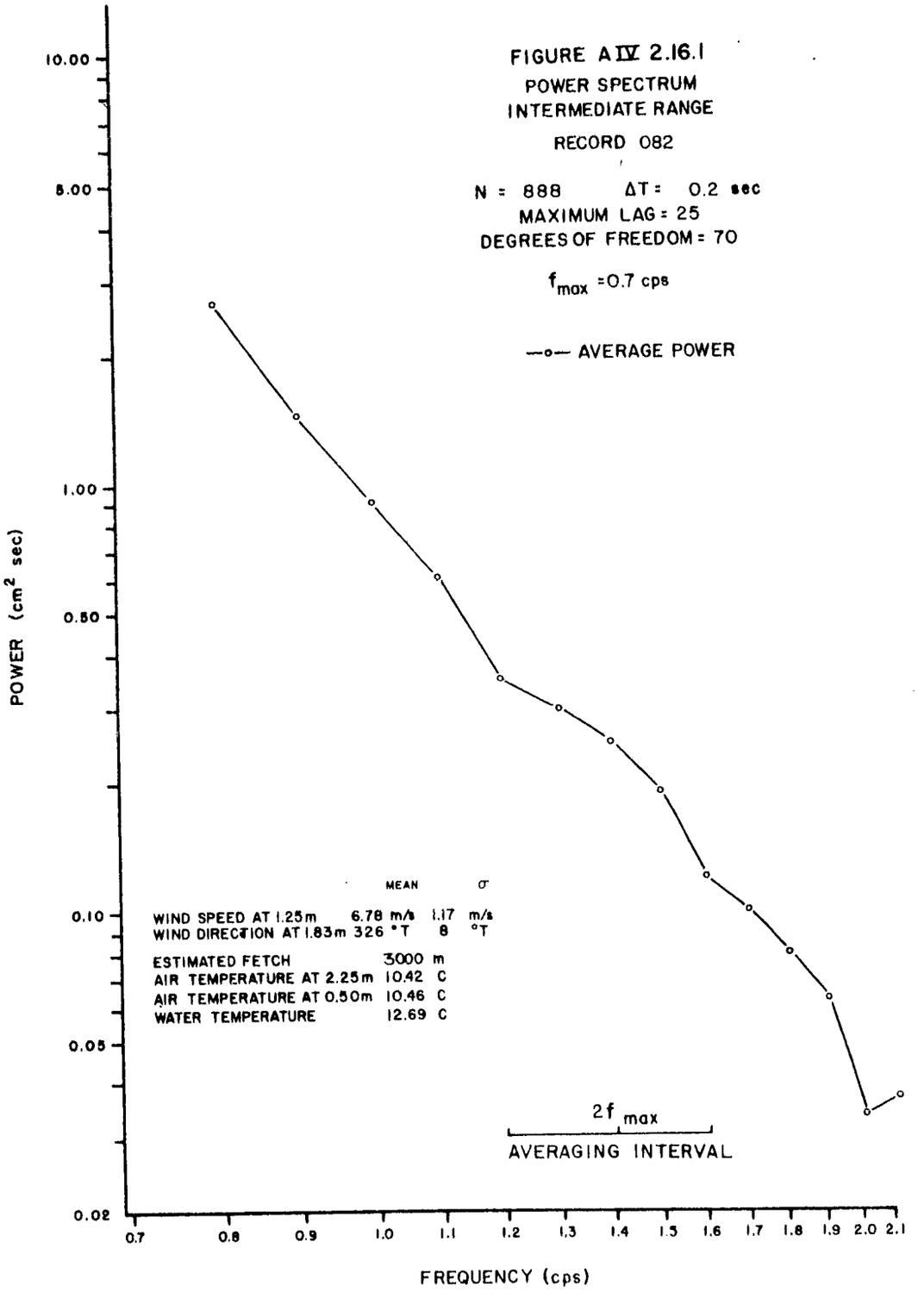
FIGURE A IV 2.15.1
POWER SPECTRUM
INTERMEDIATE RANGE
RECORD 081
N = 750 ΔT = 0.2 sec
MAXIMUM LAG = 25
DEGREES OF FREEDOM = 59
f_{max} = 0.6 cps
—o— AVERAGE POWER
MEAN σ
WIND SPEED AT 1.25m 6.78 m/s 1.17 m/s
WIND DIRECTION AT 1.83m 326 °T 8 °T
ESTIMATED FETCH 3000 m
AIR TEMPERATURE AT 2.25m 10.42 C
AIR TEMPERATURE AT 0.50m 10.46 C
WATER TEMPERATURE 12.69 C
2f max
AVERAGING INTERVAL
POWER (cm² sec)
10.00
5.00
1.00
0.50
0.10
0.05
0.02
0.7 0.8 0.9 1.0 1.1 1.2 1.3 1.4 1.5 1.6 1.7 1.8 1.9 2.0 2.1
FREQUENCY (cps)

FIGURE A IV 2.16.1
POWER SPECTRUM
INTERMEDIATE RANGE
RECORD 082

N = 888 ΔT = 0.2 sec
MAXIMUM LAG = 25
DEGREES OF FREEDOM = 70

f_{max} = 0.7 cps

—o— AVERAGE POWER



	MEAN	σ
WIND SPEED AT 1.25m	6.78 m/s	1.17 m/s
WIND DIRECTION AT 1.83m	326 °T	8 °T
ESTIMATED FETCH	3000 m	
AIR TEMPERATURE AT 2.25m	10.42 C	
AIR TEMPERATURE AT 0.50m	10.46 C	
WATER TEMPERATURE	12.69 C	

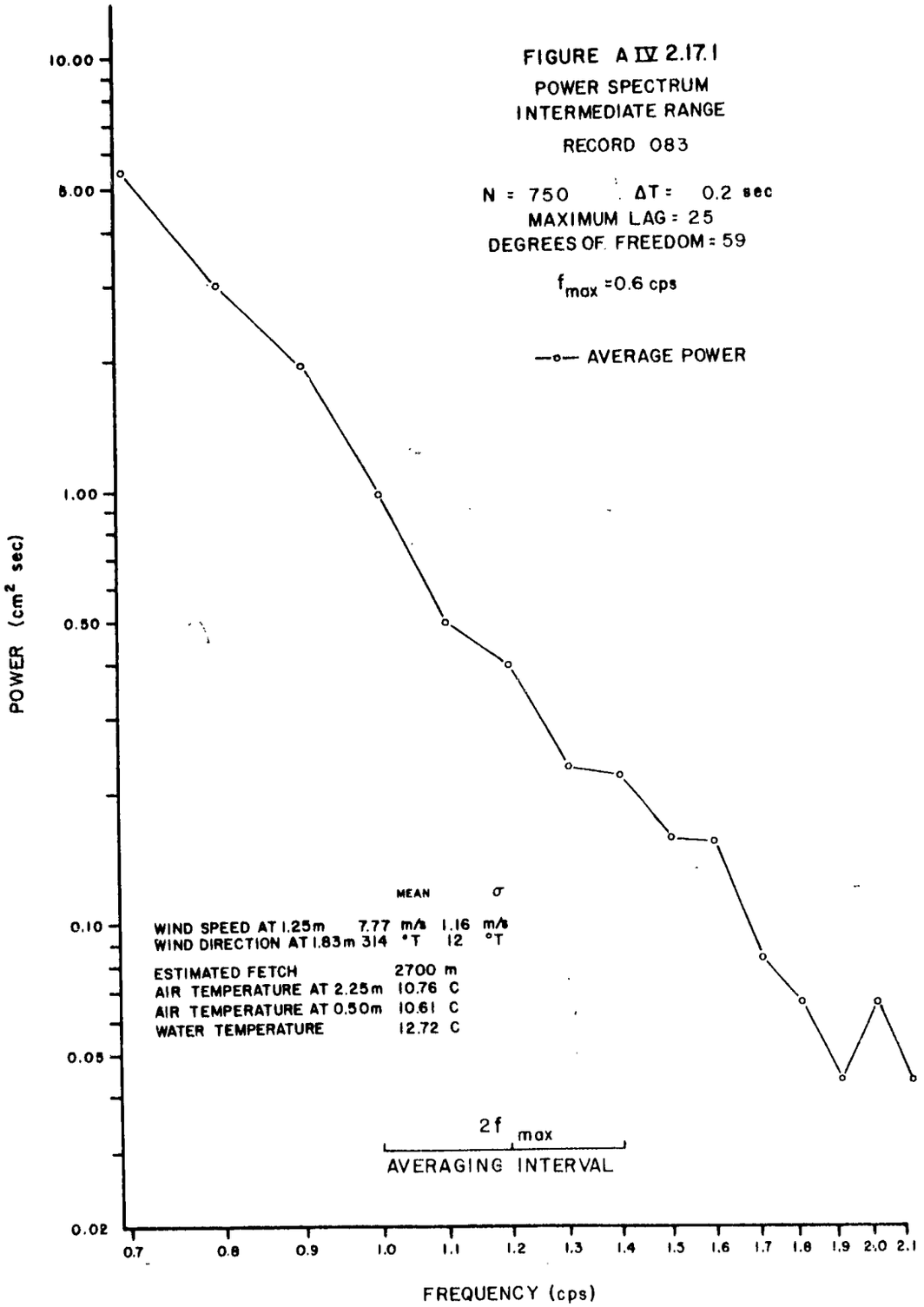


FIGURE A IV 2.17.1
POWER SPECTRUM
INTERMEDIATE RANGE
RECORD 083
N = 750 ΔT = 0.2 sec
MAXIMUM LAG = 25
DEGREES OF FREEDOM = 59
f_{max} = 0.6 cps
—o— AVERAGE POWER
POWER (cm² sec)
10.00
5.00
1.00
0.50
0.10
0.05
0.02
MEAN σ
WIND SPEED AT 1.25m 7.77 m/s 1.16 m/s
WIND DIRECTION AT 1.83m 314 °T 12 °T
ESTIMATED FETCH 2700 m
AIR TEMPERATURE AT 2.25m 10.76 C
AIR TEMPERATURE AT 0.50m 10.61 C
WATER TEMPERATURE 12.72 C
2f max
AVERAGING INTERVAL
0.7 0.8 0.9 1.0 1.1 1.2 1.3 1.4 1.5 1.6 1.7 1.8 1.9 2.0 2.1
FREQUENCY (cps)

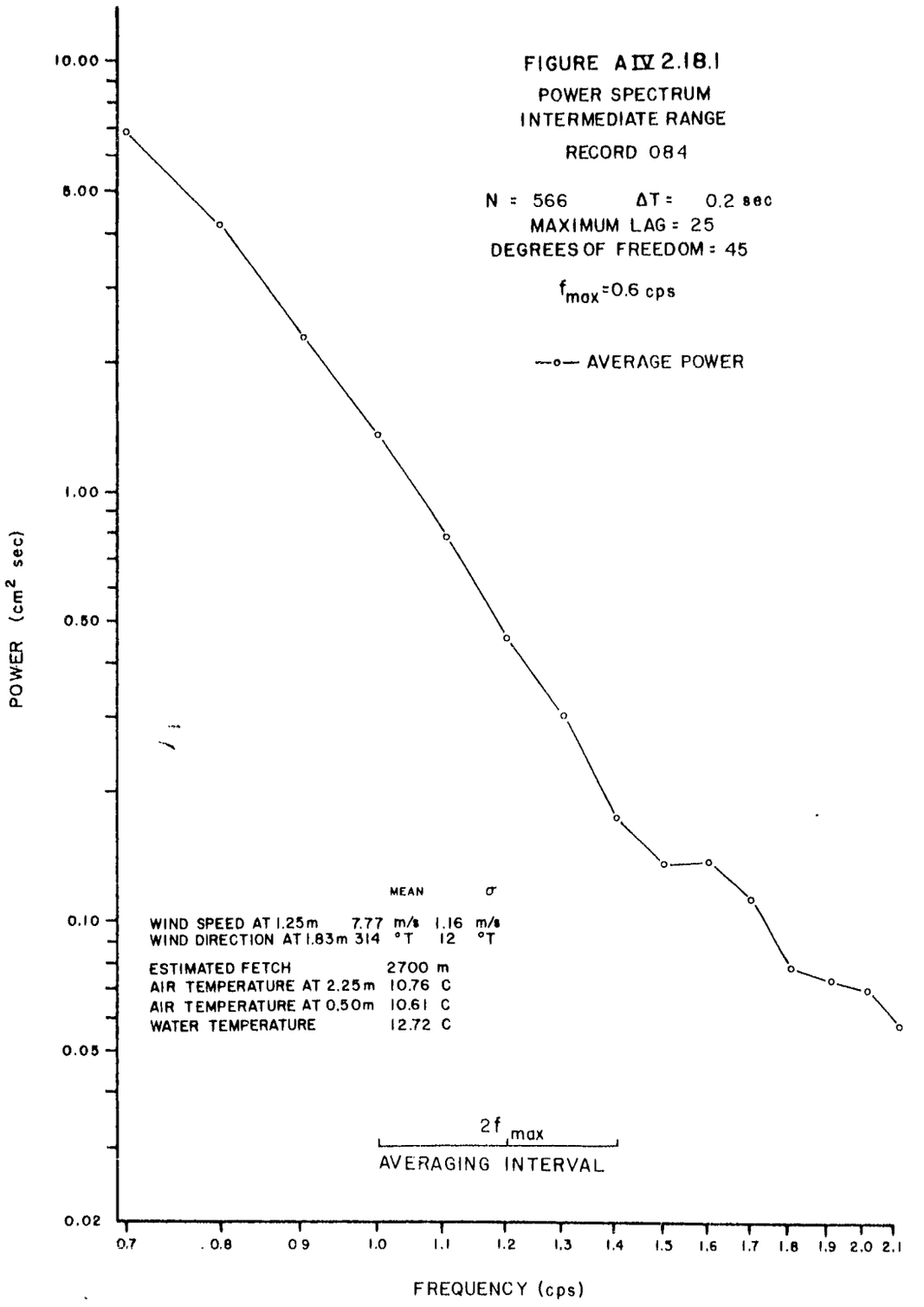


FIGURE A IV 2.18.1
POWER SPECTRUM
INTERMEDIATE RANGE
RECORD 084
N = 566 ΔT = 0.2 sec
MAXIMUM LAG = 25
DEGREES OF FREEDOM = 45
f_{max}=0.6 cps
—o— AVERAGE POWER
POWER (cm² sec)
10.00
5.00
1.00
0.50
0.10
0.05
0.02
MEAN σ
WIND SPEED AT 1.25m 7.77 m/s 1.16 m/s
WIND DIRECTION AT 1.83m 314 °T 12 °T
ESTIMATED FETCH 2700 m
AIR TEMPERATURE AT 2.25m 10.76 C
AIR TEMPERATURE AT 0.50m 10.61 C
WATER TEMPERATURE 12.72 C
2f max
AVERAGING INTERVAL
0.7 0.8 0.9 1.0 1.1 1.2 1.3 1.4 1.5 1.6 1.7 1.8 1.9 2.0 2.1
FREQUENCY (cps)

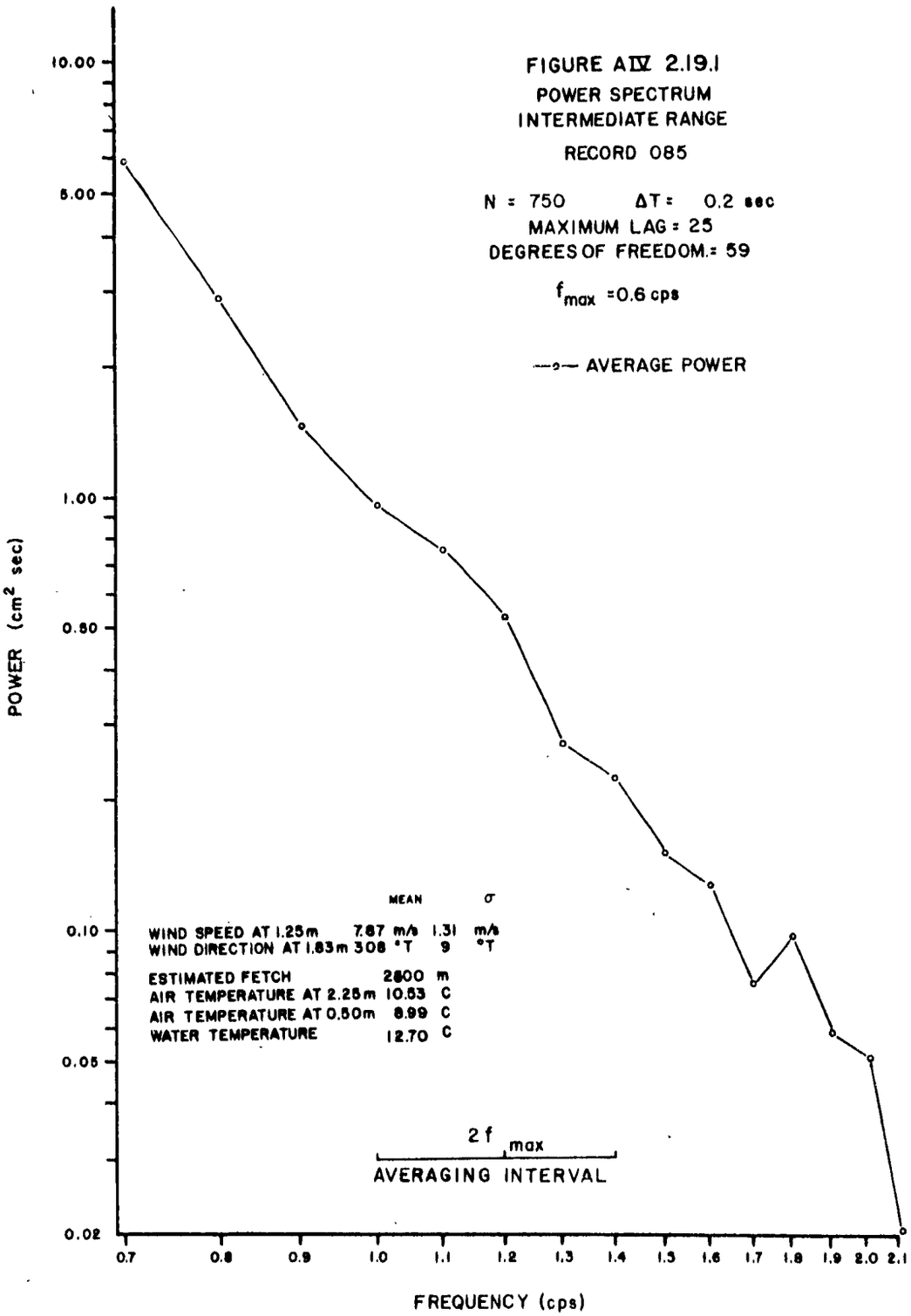


FIGURE AIV 2.19.1
POWER SPECTRUM
INTERMEDIATE RANGE
RECORD 085
N = 750 ΔT = 0.2 sec
MAXIMUM LAG = 25
DEGREES OF FREEDOM.= 59
f_{max} =0.6 cps
—o— AVERAGE POWER
MEAN σ
WIND SPEED AT 1.25m 7.67 m/s 1.31 m/s
WIND DIRECTION AT 1.83m 308 °T 9 °T
ESTIMATED FETCH 2800 m
AIR TEMPERATURE AT 2.25m 10.53 C
AIR TEMPERATURE AT 0.50m 8.99 C
WATER TEMPERATURE 12.70 C
2 f max
AVERAGING INTERVAL
POWER (cm² sec)
10.00
5.00
1.00
0.50
0.10
0.05
0.02
0.7
0.8
0.9
1.0
1.1
1.2
1.3
1.4
1.5
1.6
1.7
1.8
1.9
2.0
2.1
FREQUENCY (cps)

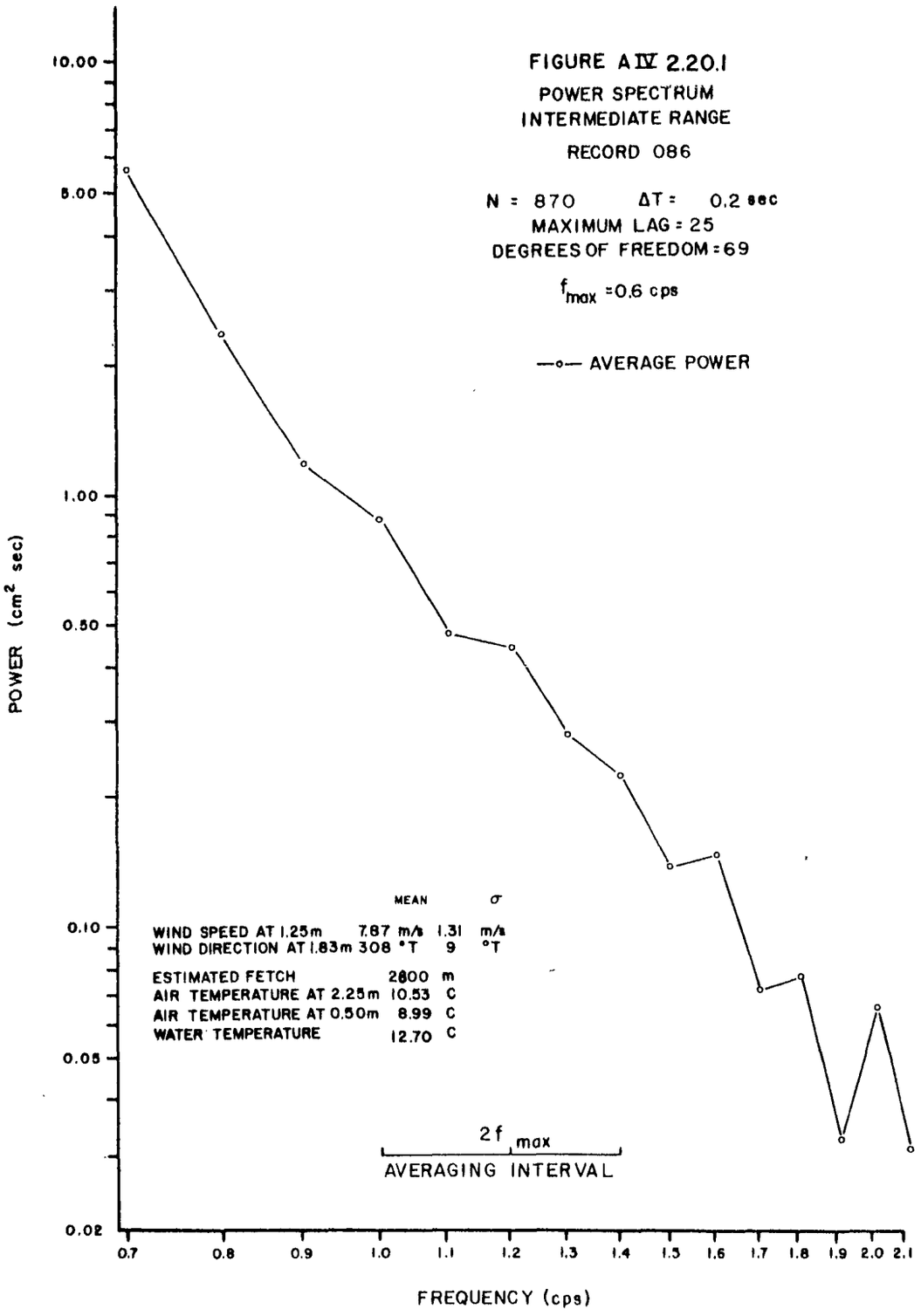


FIGURE A IV 2.20.1
POWER SPECTRUM
INTERMEDIATE RANGE
RECORD 086

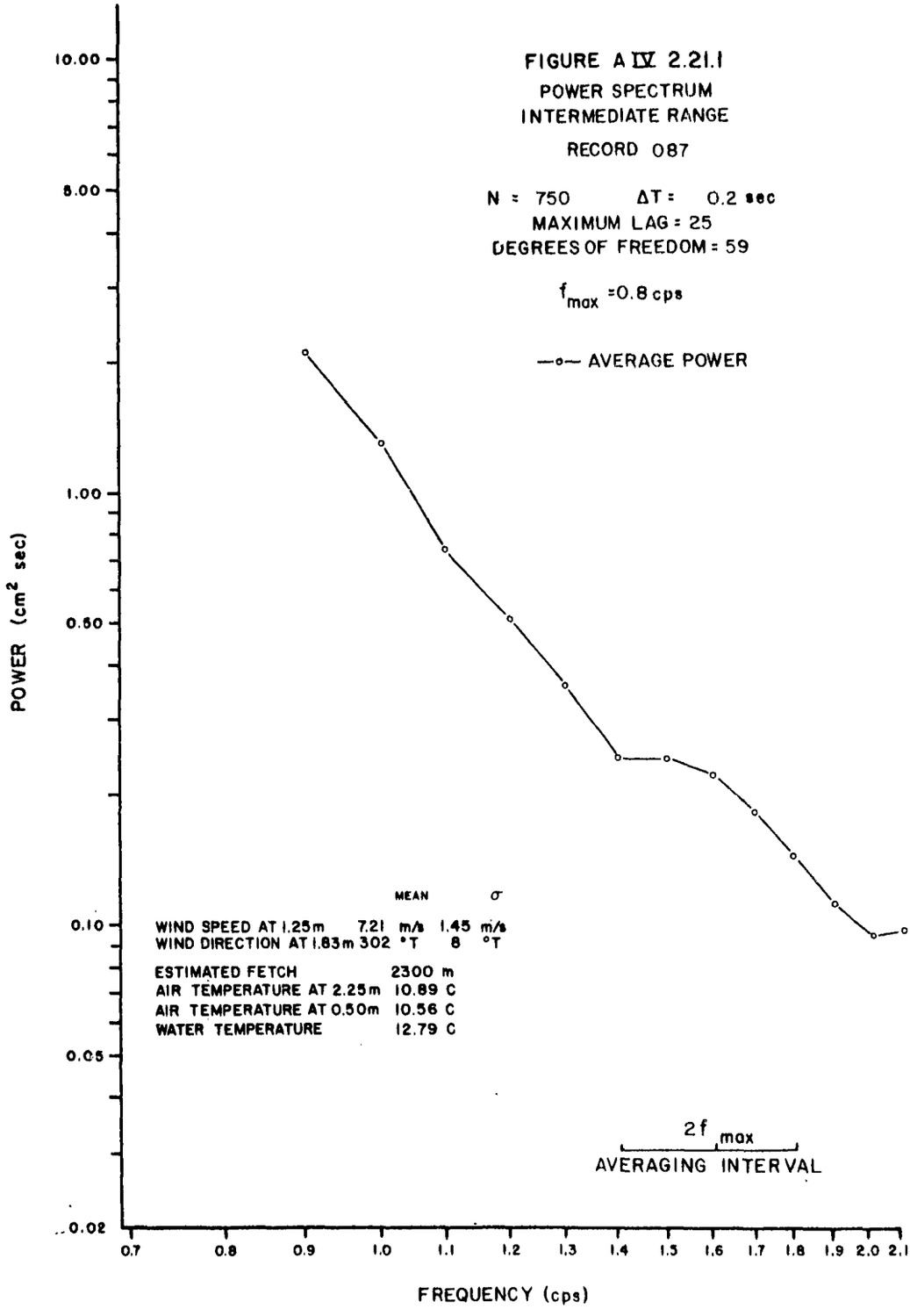


FIGURE A IV 2.21.1
POWER SPECTRUM
INTERMEDIATE RANGE
RECORD 087
N = 750 ΔT = 0.2 sec
MAXIMUM LAG = 25
DEGREES OF FREEDOM = 59
f_{max} = 0.8 cps
—o— AVERAGE POWER
MEAN σ
WIND SPEED AT 1.25m 7.21 m/s 1.45 m/s
WIND DIRECTION AT 1.83m 302 °T 8 °T
ESTIMATED FETCH 2300 m
AIR TEMPERATURE AT 2.25m 10.89 C
AIR TEMPERATURE AT 0.50m 10.56 C
WATER TEMPERATURE 12.79 C
2f max
AVERAGING INTERVAL
POWER (cm² sec)
10.00
5.00
1.00
0.50
0.10
0.05
0.02
0.7
0.8
0.9
1.0
1.1
1.2
1.3
1.4
1.5
1.6
1.7
1.8
1.9
2.0
2.1
FREQUENCY (cps)

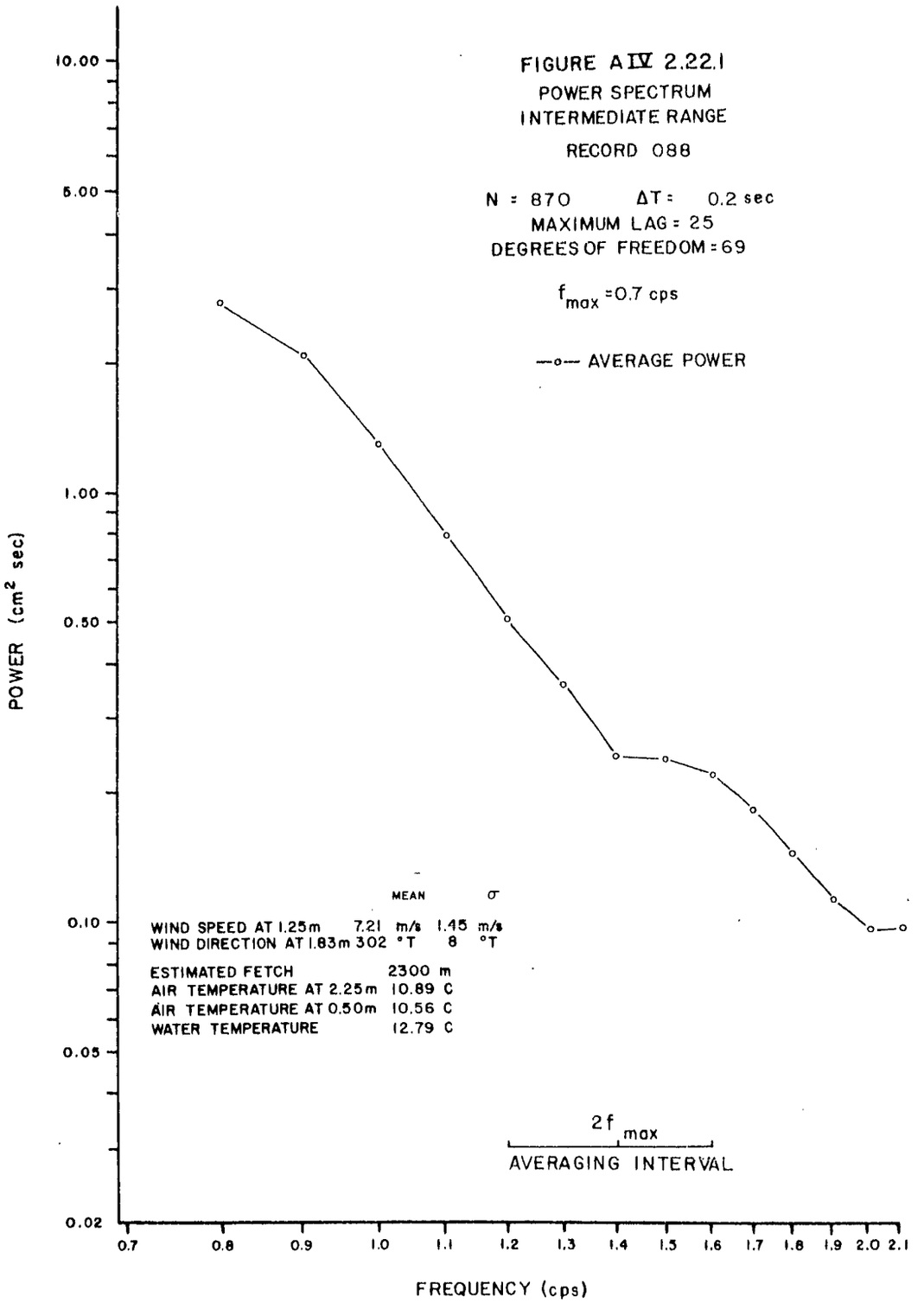


FIGURE AIV 2.22.1
POWER SPECTRUM
INTERMEDIATE RANGE
RECORD 088
N = 870 ΔT = 0.2 sec
MAXIMUM LAG = 25
DEGREES OF FREEDOM = 69
f_{max} = 0.7 cps
—o— AVERAGE POWER
MEAN σ
WIND SPEED AT 1.25m 7.21 m/s 1.45 m/s
WIND DIRECTION AT 1.83m 302 °T 8 °T
ESTIMATED FETCH 2300 m
AIR TEMPERATURE AT 2.25m 10.89 C
AIR TEMPERATURE AT 0.50m 10.56 C
WATER TEMPERATURE 12.79 C
2f max
AVERAGING INTERVAL
POWER (cm² sec)
10.00
5.00
1.00
0.50
0.10
0.05
0.02
0.7 0.8 0.9 1.0 1.1 1.2 1.3 1.4 1.5 1.6 1.7 1.8 1.9 2.0 2.1
FREQUENCY (cps)

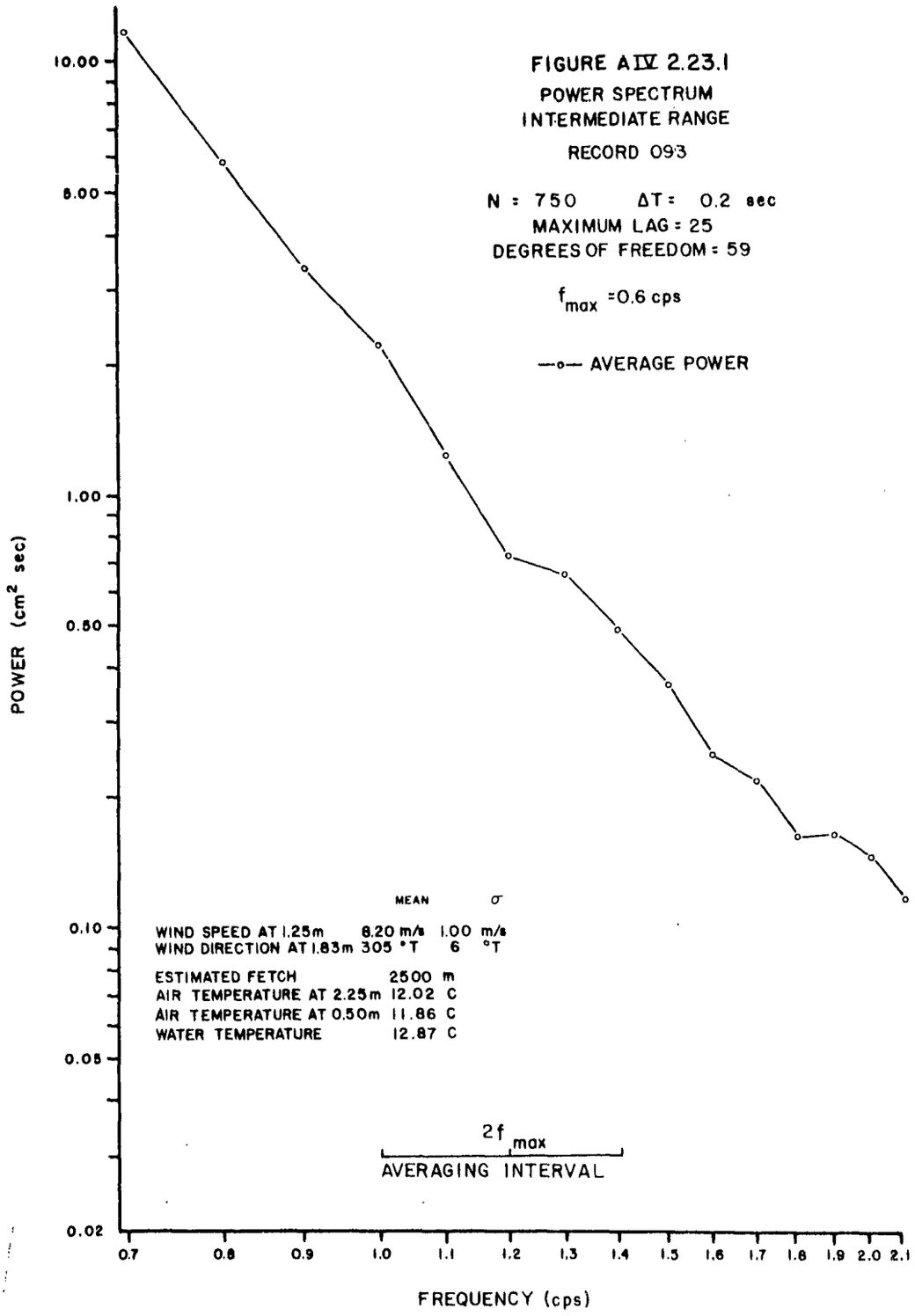


FIGURE AIV 2.23.1
POWER SPECTRUM
INTERMEDIATE RANGE
RECORD 093
N = 750 ΔT = 0.2 sec
MAXIMUM LAG = 25
DEGREES OF FREEDOM = 59
f_{max} = 0.6 cps
—o— AVERAGE POWER
MEAN σ
WIND SPEED AT 1.25m 8.20 m/s 1.00 m/s
WIND DIRECTION AT 1.83m 305 °T 6 °T
ESTIMATED FETCH 2500 m
AIR TEMPERATURE AT 2.25m 12.02 C
AIR TEMPERATURE AT 0.50m 11.86 C
WATER TEMPERATURE 12.87 C
$2f_{max}$
AVERAGING INTERVAL
POWER (cm² sec)
10.00
5.00
1.00
0.50
0.10
0.05
0.02
0.7
0.8
0.9
1.0
1.1
1.2
1.3
1.4
1.5
1.6
1.7
1.8
1.9
2.0
2.1
FREQUENCY (cps)

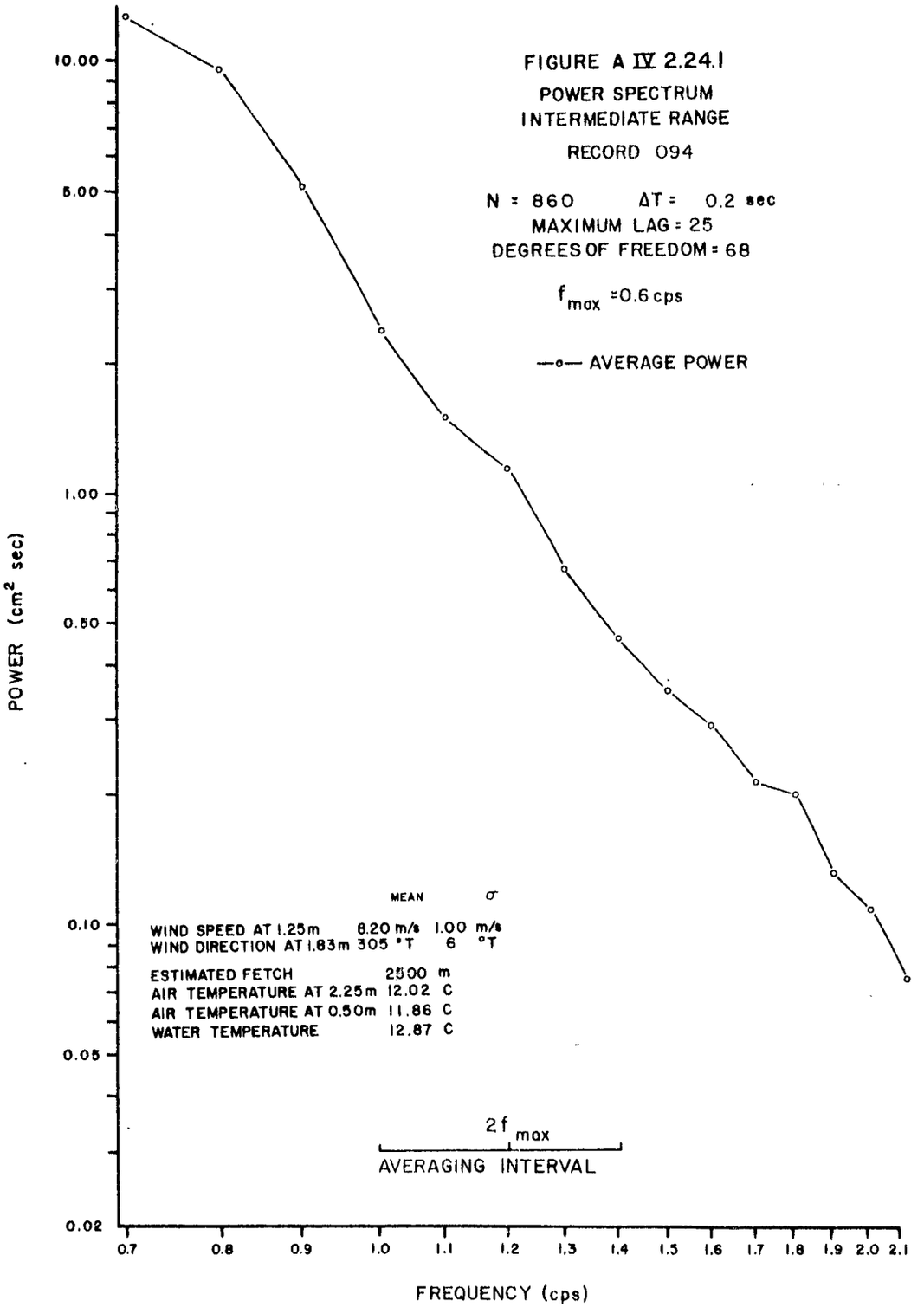


FIGURE A IV 2.24.1
POWER SPECTRUM
INTERMEDIATE RANGE
RECORD 094

N = 860 ΔT = 0.2 sec
MAXIMUM LAG = 25
DEGREES OF FREEDOM = 68

f_{max} = 0.6 cps

—o— AVERAGE POWER

TABLE A IV 2.01
POWER SPECTRUM
RECORD 009

N= 1549 ΔT = 0.1 sec Maximum Lag = 50 Degrees of Freedom= 61

Wind Speed at 1.04 m : mean 4.92 m/s σ 0.58 m/s
Wind Direction at 1.34 m : mean 286 °T σ 8 °T

Estimated Fetch 2100 m
Air Temperature 27.45 C Water Temperature 26.18 C

Frequency (cps)	Power (cm^2 sec)	10% Confidence Limit (cm^2 sec)	90% Confidence Limit (cm^2 sec)	50% Confidence Limit (cm^2 sec)
0.0	---	---	---	---
0.1	.208, 0	.168, 0	.272, 0	.206, 0
0.2	.525, -1	.422, -1	.685, -1	.520, -1
0.3	.145, 0	.116, 0	.189, 0	.144, 0
0.4	.226, 1	.182, 0	.296, 1	.224, 1
0.5	.865, 1	.700, 1	.114, 2	.860, 1
0.6	.115, 2	.925, 1	.150, 2	.114, 2
0.7	.825, 1	.660, 1	.108, 2	.815, 1
0.8	.461, 1	.371, 1	.600, 1	.456, 1
0.9	.237, 1	.191, 1	.310, 1	.234, 1
1.0	.124, 1	.995, 0	.162, 1	.122, 1
1.1	.730, 0	.585, 0	.950, 0	.720, 0
1.2	.474, 0	.382, 0	.620, 0	.470, 0
1.3	.351, 0	.282, 0	.458, 0	.348, 0
1.4	.329, 0	.265, 0	.430, 0	.326, 0
1.5	.232, 0	.187, 0	.304, 0	.230, 0
1.6	.144, 0	.116, 0	.189, 0	.143, 0
1.7	.900, -1	.725, -1	.118, 0	.895, -1
1.8	.690, -1	.555, -1	.900, -1	.680, -1
1.9	.595, -1	.478, -1	.775, -1	.590, -1
2.0	.540, -1	.434, -1	.705, -1	.535, -1
2.1	.366, -1	.295, -1	.479, -1	.363, -1
2.2	.268, -1	.216, -1	.350, -1	.265, -1
2.3	.216, -1	.174, -1	.283, -1	.214, -1
2.4	.222, -1	.178, -1	.290, -1	.220, -1
2.5	.122, -1	.980, -2	.159, -1	.120, -1

TABLE A IV 2.02
POWER SPECTRUM
RECORD 010

N = 1406 ΔT = 0.1 sec Maximum Lag = 50 Degrees of Freedom = 56

Wind Speed at 1.04 m : mean 4.92 m/s σ 0.58 m/s
Wind Direction at 1.34 m : mean 286 °T σ 8 °T

Estimated Fetch 2100 m
Air Temperature 27.45 C Water Temperature 26.18 C

Frequency (cps)	Power (cm^2 sec)	10% Confidence Limit (cm^2 sec)	90% Confidence Limit (cm^2 sec)	50% Confidence Limit (cm^2 sec)
0.0	---	---	---	---
0.1	.206, 0	.166, 0	.272, 0	.204, 0
0.2	-.428,-2	-.342,-2	-.565,-2	-.424,-2
0.3	.158, 0	.126, 0	.208, 0	.156, 0
0.4	.246, 1	.196, 1	.324, 1	.244, 1
0.5	.980, 1	.785, 1	.129, 2	.970, 1
0.6	.124, 2	.985, 1	.162, 2	.122, 2
0.7	.785, 1	.625, 1	.104, 2	.775, 1
0.8	.441, 1	.353, 1	.580, 1	.436, 1
0.9	.261, 1	.209, 1	.344, 1	.258, 1
1.0	.164, 1	.132, 1	.217, 1	.163, 1
1.1	.920, 0	.735, 0	.122, 1	.910, 0
1.2	.645, 0	.520, 0	.855, 0	.640, 0
1.3	.441, 0	.353, 0	.580, 0	.436, 0
1.4	.320, 0	.256, 0	.422, 0	.317, 0
1.5	.204, 0	.164, 0	.270, 0	.202, 0
1.6	.158, 0	.126, 0	.208, 0	.156, 0
1.7	.112, 0	.900,-1	.148, 0	.111, 0
1.8	.985,-1	.785,-1	.130, 0	.975,-1
1.9	.635,-1	.505,-1	.835,-1	.630,-1
2.0	.700,-1	.560,-1	.925,-1	.695,-1
2.1	.487,-1	.390,-1	.640,-1	.482,-1
2.2	.393,-1	.314,-1	.520,-1	.389,-1
2.3	.200,-1	.160,-1	.264,-1	.198,-1
2.4	.254,-1	.204,-1	.336,-1	.252,-1
2.5	.148,-1	.119,-1	.196,-1	.147,-1

TABLE A IV 2.03
POWER SPECTRUM
RECORD 011

N = 1509 ΔT = 0.1 sec Maximum Lag = 50 Degrees of Freedom = 60

Wind Speed at 1.22 m : mean 5.09 m/s σ 0.58 m/s
Wind Direction at 1.52 m : mean 288 °T σ 9 °T

Estimated Fetch 2200 m
Air Temperature 28.98 C Water Temperature 26.62 C

Frequency (cps)	Power (cm^2 sec)	10% Confidence Limit (cm^2 sec)	90% Confidence Limit (cm^2 sec)	50% Confidence Limit (cm^2 sec)
0.0	.258, 0	.208, 0	.338, 0	.256, 0
0.1	.205, 0	.165, 0	.268, 0	.203, 0
0.2	.112, 1	.900, 0	.147, 0	.111, 1
0.3	.487, 1	.392, 1	.640, 1	.482, 1
0.4	.750, 1	.605, 1	.980, 1	.745, 1
0.5	.995, 1	.800, 1	.130, 2	.985, 1
0.6	.120, 2	.965, 1	.157, 2	.118, 2
0.7	.795, 1	.640, 1	.104, 2	.790, 1
0.8	.368, 1	.296, 1	.482, 1	.365, 1
0.9	.174, 1	.140, 1	.228, 1	.172, 1
1.0	.105, 1	.845, 0	.138, 1	.104, 1
1.1	.970, 0	.780, 0	.126, 1	.960, 0
1.2	.825, 0	.660, 0	.108, 1	.815, 0
1.3	.472, 0	.380, 0	.620, 0	.467, 0
1.4	.286, 0	.230, 0	.374, 0	.282, 0
1.5	.203, 0	.164, 0	.266, 0	.201, 0
1.6	.171, 0	.138, 0	.224, 0	.169, 0
1.7	.124, 0	.990,-1	.162, 0	.122, 0
1.8	.116, 0	.935,-1	.152, 0	.115, 0
1.9	.975,-1	.785,-1	.128, 0	.965,-1
2.0	.720,-1	.580,-1	.940,-1	.715,-1
2.1	.441,-1	.354,-1	.575,-1	.436,-1
2.2	.478,-1	.384,-1	.625,-1	.474,-1
2.3	.386,-1	.310,-1	.505,-1	.382,-1
2.4	.303,-1	.244,-1	.396,-1	.300,-1
2.5	.237,-1	.190,-1	.310,-1	.234,-1

TABLE A IV 2.04
POWER SPECTRUM
RECORD 012

N = 1337 ΔT = 0.1 sec Maximum Lag = 50 Degrees of Freedom = 53

Wind Speed at 1.22 m : mean 5.09 m/s σ 0.58 m/s
Wind Direction at 1.52 m : mean 288 °T σ 9 °T

Estimated Fetch 2200 m
Air Temperature 28.98 C Water Temperature 26.62 C

Frequency (cps)	Power (cm^2 sec)	10% Confidence Limit (cm^2 sec)	90% Confidence Limit (cm^2 sec)	50% Confidence Limit (cm^2 sec)
0.0	.334, 0	.266, 0	.442, 0	.330, 0
0.1	.318, 0	.254, 0	.422, 0	.315, 0
0.2	.145, 0	.116, 0	.192, 0	.144, 0
0.3	.261, 0	.208, 0	.346, 0	.258, 0
0.4	.228, 1	.182, 1	.302, 1	.226, 1
0.5	.930, 1	.740, 1	.123, 2	.920, 1
0.6	.126, 2	.100, 2	.166, 2	.124, 2
0.7	.790, 1	.630, 1	.104, 2	.780, 1
0.8	.320, 1	.256, 1	.425, 1	.317, 1
0.9	.156, 1	.124, 1	.206, 1	.154, 1
1.0	.122, 1	.970, 0	.162, 1	.121, 1
1.1	.945, 0	.750, 0	.125, 1	.935, 0
1.2	.595, 0	.472, 0	.785, 0	.585, 0
1.3	.388, 0	.310, 0	.515, 0	.384, 0
1.4	.281, 0	.224, 0	.372, 0	.278, 0
1.5	.174, 0	.138, 0	.230, 0	.172, 0
1.6	.152, 0	.122, 0	.202, 0	.151, 0
1.7	.133, 0	.106, 0	.176, 0	.132, 0
1.8	.114, 0	.910,-1	.152, 0	.113, 0
1.9	.890,-1	.710,-1	.118, 0	.880,-1
2.0	.885,-1	.705,-1	.118, 0	.880,-1
2.1	.590,-1	.468,-1	.780,-1	.580,-1
2.2	.461,-1	.367,-1	.610,-1	.456,-1
2.3	.410,-1	.327,-1	.545,-1	.406,-1
2.4	.428,-1	.341,-1	.565,-1	.424,-1
2.5	.327,-1	.260,-1	.434,-1	.324,-1

TABLE A IV 2.05
POWER SPECTRUM
RECORD 017

N = 1473 ΔT = 0.1 sec Maximum Lag = 50 Degrees of Freedom = 58

Wind Speed at 1.22 m : mean 3.88 m/s σ 0.45 m/s
Wind Direction at 1.52 m : mean 277 °T σ 10 °T

Estimated Fetch 1700 m
Air Temperature 29.51 C Water Temperature 27.55 C

Frequency (cps)	Power (cm^2 sec)	10% Confidence Limit (cm^2 sec)	90% Confidence Limit (cm^2 sec)	50% Confidence Limit (cm^2 sec)
0.0	---	---	---	---
0.1	.480,-1	.386,-1	.630,-1	.476,-1
0.2	.555,-1	.444,-1	.725,-1	.545,-1
0.3	.120, 0	.960,-1	.158, 0	.119, 0
0.4	.198, 0	.158, 0	.260, 0	.196, 0
0.5	.450, 0	.360, 0	.590, 0	.446, 0
0.6	.187, 1	.150, 1	.246, 1	.186, 1
0.7	.371, 1	.298, 1	.487, 1	.367, 1
0.8	.332, 1	.266, 1	.436, 1	.328, 1
0.9	.196, 1	.158, 1	.258, 1	.194, 1
1.0	.132, 1	.106, 1	.173, 1	.130, 1
1.1	.895, 0	.720, 0	.118, 1	.885, 0
1.2	.595, 0	.478, 0	.785, 0	.590, 0
1.3	.380, 0	.304, 0	.499, 0	.376, 0
1.4	.290, 0	.232, 0	.380, 0	.287, 0
1.5	.257, 0	.206, 0	.338, 0	.254, 0
1.6	.166, 0	.132, 0	.218, 0	.164, 0
1.7	.143, 0	.114, 0	.188, 0	.142, 0
1.8	.120, 0	.955,-1	.157, 0	.118, 0
1.9	.685,-1	.550,-1	.900,-1	.680,-1
2.0	.510,-1	.410,-1	.670,-1	.505,-1
2.1	.520,-1	.419,-1	.685,-1	.515,-1
2.2	.500,-1	.401,-1	.655,-1	.496,-1
2.3	.378,-1	.302,-1	.496,-1	.374,-1
2.4	.232,-1	.186,-1	.306,-1	.230,-1
2.5	.188,-1	.150,-1	.246,-1	.186,-1

TABLE A IV 2.06
POWER SPECTRUM
RECORD 018

N = 1411 ΔT = 0.1 sec Maximum Lag = 50 Degrees of Freedom = 56

Wind Speed at 1.22 m : mean 3.88 m/s σ 0.45 m/s
Wind Direction at 1.52 m : mean 277 °T σ 10 °T

Estimated Fetch 1700 m
Air Temperature 29.51 C Water Temperature 27.55 C

Frequency (cps)	Power (cm^2 sec)	10% Confidence Limit (cm^2 sec)	90% Confidence Limit (cm^2 sec)	50% Confidence Limit (cm^2 sec)
0.0	---	---	---	---
0.1	.900,-1	.720,-1	.118, 0	.890,-1
0.2	.149, 0	.120, 0	.197, 0	.148, 0
0.3	.685, 0	.550, 0	.905, 0	.680, 0
0.4	.109, 1	.870, 0	.144, 1	.108, 1
0.5	.140, 1	.112, 1	.184, 1	.138, 1
0.6	.228, 1	.182, 1	.301, 1	.226, 1
0.7	.378, 1	.302, 1	.498, 1	.374, 1
0.8	.384, 1	.307, 1	.505, 1	.380, 1
0.9	.250, 1	.200, 1	.330, 1	.248, 1
1.0	.142, 1	.114, 1	.187, 1	.140, 1
1.1	.875, 0	.700, 0	.116, 1	.865, 0
1.2	.605, 0	.484, 0	.800, 0	.600, 0
1.3	.487, 0	.390, 0	.640, 0	.482, 0
1.4	.346, 0	.278, 0	.457, 0	.344, 0
1.5	.281, 0	.224, 0	.370, 0	.278, 0
1.6	.176, 0	.140, 0	.232, 0	.174, 0
1.7	.980,-1	.785,-1	.130, 0	.970,-1
1.8	.810,-1	.645,-1	.106, 0	.800,-1
1.9	.675,-1	.540,-1	.890,-1	.665,-1
2.0	.470,-1	.376,-1	.620,-1	.465,-1
2.1	.424,-1	.338,-1	.560,-1	.420,-1
2.2	.360,-1	.288,-1	.474,-1	.356,-1
2.3	.332,-1	.265,-1	.437,-1	.328,-1
2.4	.266,-1	.212,-1	.350,-1	.263,-1
2.5	.188,-1	.151,-1	.248,-1	.186,-1

TABLE A IV 2.07
POWER SPECTRUM
RECORD 027

N = 1527 ΔT = 0.1 sec Maximum Lag = 50 Degrees of Freedom = 60

Wind Speed at 1.35 m : mean 4.64 m/s σ 0.56 m/s
Wind Direction at 1.65 m : mean 314 °T σ 7 °T

Estimated Fetch 2300 m
Air Temperature 24.64 C Water Temperature 26.38 C

Frequency (cps)	Power (cm^2 sec)	10% Confidence Limit (cm^2 sec)	90% Confidence Limit (cm^2 sec)	50% Confidence Limit (cm^2 sec)
0.0	---	---	---	---
0.1	-.101,-1	-.815,-2	-.132,-1	-.100,-1
0.2	.336,-1	.270.-1	.440,-1	.332,-1
0.3	.182,-1	.146,-1	.238,-1	.180,-1
0.4	.950,-1	.765,-1	.124, 0	.945,-1
0.5	.102, 1	.825, 0	.134, 1	.102, 1
0.6	.404, 1	.324, 1	.530, 1	.400, 1
0.7	.520, 1	.418, 1	.680, 1	.515, 1
0.8	.314, 1	.252, 1	.411, 1	.310, 1
0.9	.186, 1	.150, 1	.244, 1	.184, 1
1.0	.124, 1	.100, 1	.163, 1	.123, 1
1.1	.740, 0	.595, 0	.970, 0	.735, 0
1.2	.419, 0	.337, 0	.550, 0	.415, 0
1.3	.283, 0	.228, 0	.370, 0	.280, 0
1.4	.230, 0	.185, 0	.302, 0	.228, 0
1.5	.182, 0	.146, 0	.238, 0	.180, 0
1.6	.152, 0	.122, 0	.198, 0	.150, 0
1.7	.131, 0	.105, 0	.171, 0	.130, 0
1.8	.960,-1	.775,-1	.126, 0	.950,-1
1.9	.860,-1	.690,-1	.112, 0	.850,-1
2.0	.570,-1	.458,-1	.745,-1	.565,-1
2.1	.386,-1	.310,-1	.505,-1	.382,-1
2.2	.305,-1	.245,-1	.400,-1	.302,-1
2.3	.332,-1	.266,-1	.434,-1	.328,-1
2.4	.210,-1	.170,-1	.276,-1	.208,-1
2.5	.198,-1	.159,-1	.259,-1	.196,-1

TABLE A IV 2.08
POWER SPECTRUM
RECORD 028

N = 1574 ΔT = 0.1 sec Maximum Lag = 50 Degrees of Freedom = 62

Wind Speed at 1.35 m : mean 4.64 m/s σ 0.56 m/s
Wind Direction at 1.65 m : mean 314 °T σ 7 °T

Estimated Fetch 2300 m
Air Temperature 24.64 C Water Temperature 26.38 C

Frequency (cps)	Power (cm^2 sec)	10% Confidence Limit (cm^2 sec)	90% Confidence Limit (cm^2 sec)	50% Confidence Limit (cm^2 sec)
0.0	---	---	---	---
0.1	.955, 0	.770, 0	.125, 1	.945, 0
0.2	.930, 0	.750, 0	.122, 1	.920, 0
0.3	.665, 0	.535, 0	.865, 0	.655, 0
0.4	.422, 0	.340, 0	.550, 0	.417, 0
0.5	.825, 0	.665, 0	.108, 1	.815, 0
0.6	.296, 1	.239, 1	.386, 1	.294, 1
0.7	.397, 1	.320, 1	.520, 1	.393, 1
0.8	.261, 1	.210, 1	.340, 1	.258, 1
0.9	.168, 1	.136, 1	.220, 1	.167, 1
1.0	.128, 1	.104, 1	.168, 1	.128, 1
1.1	.805, 0	.650, 0	.105, 1	.795, 0
1.2	.494, 0	.398, 0	.645, 0	.489, 0
1.3	.334, 0	.269, 0	.435, 0	.330, 0
1.4	.192, 0	.154, 0	.250, 0	.190, 0
1.5	.138, 0	.111, 0	.180, 0	.136, 0
1.6	.121, 0	.975, -1	.158, 0	.120, 0
1.7	.106, 0	.850, -1	.138, 0	.104, 0
1.8	.720, -1	.580, -1	.935, -1	.710, -1
1.9	.635, -1	.510, -1	.825, -1	.630, -1
2.0	.494, -1	.398, -1	.645, -1	.489, -1
2.1	.450, -1	.362, -1	.585, -1	.446, -1
2.2	.327, -1	.264, -1	.426, -1	.324, -1
2.3	.320, -1	.258, -1	.418, -1	.317, -1
2.4	.294, -1	.237, -1	.384, -1	.291, -1
2.5	.320, -1	.258, -1	.418, -1	.317, -1

TABLE A IV 2.09
POWER SPECTRUM
RECORD 067

N = 750 ΔT = 0.2 sec Maximum Lag = 25 Degrees of Freedom = 59

Wind Speed at 1.25m' mean 6.18 m/s σ 1.09 m/s
Wind Direction at 1.83m' mean 307 °T σ 7 °T

Estimated Fetch 2700 m
Air Temperature at 2.25m 9.25 C
Air Temperature at 0.50m 9.88 C
Water Temperature 12.46 C

Frequency (cps)	Power (cm^2 sec)	10% Confidence Limit (cm^2 sec)	90% Confidence Limit (cm^2 sec)	50% Confidence Limit (cm^2 sec)
0.0	.498, 0	.400, 0	.655, 0	.493, 0
0.1	.348, 0	.279, 0	.456, 0	.344, 0
0.2	.146, 0	.117, 0	.192, 0	.144, 0
0.3	-.760, -2	-.610, -2	-.995, -2	-.750, -2
0.4	.975, -1	.785, -1	.128, 0	.970, -1
0.5	.122, 1	.975, 0	.160, 1	.120, 1
0.6	.510, 1	.411, 1	.670, 1	.505, 1
0.7	.660, 1	.530, 1	.865, 1	.650, 1
0.8	.412, 1	.330, 1	.540, 1	.408, 1
0.9	.237, 1	.190, 1	.311, 1	.235, 1
1.0	.142, 1	.114, 1	.186, 1	.140, 1
1.1	.830, 0	.665, 0	.109, 1	.825, 0
1.2	.452, 0	.364, 0	.595, 0	.448, 0
1.3	.388, 0	.312, 0	.510, 0	.384, 0
1.4	.324, 0	.260, 0	.425, 0	.321, 0
1.5	.249, 0	.200, 0	.326, 0	.246, 0
1.6	.160, 0	.129, 0	.210, 0	.159, 0
1.7	.136, 0	.109, 0	.178, 0	.134, 0
1.8	.690, -1	.555, -1	.905, -1	.685, -1
1.9	.515, -1	.413, -1	.675, -1	.510, -1
2.0	.252, -1	.203, -1	.331, -1	.250, -1
2.1	.380, -1	.306, -1	.499, -1	.377, -1
2.2	.293, -1	.236, -1	.384, -1	.290, -1
2.3	.470, -1	.378, -1	.615, -1	.466, -1
2.4	.215, -1	.172, -1	.282, -1	.212, -1
2.5	.112, -1	.895, -2	.146, -1	.110, -1

TABLE A IV 2.10
POWER SPECTRUM
RECORD 068

N = 850 ΔT = 0.2 sec Maximum Lag = 25 Degrees of Freedom = 67

Wind Speed at 1.25m : mean 6.18 m/s σ 1.09 m/s
Wind Direction at 1.83m : mean 307 °T σ 7 °T

Estimated Fetch 2700 m
Air Temperature at 2.25m 9.25 C
Air Temperature at 0.50m 9.88 C
Water Temperature 12.46 C

Frequency (cps)	Power (cm^2 sec)	10% Confidence Limit (cm^2 sec)	90% Confidence Limit (cm^2 sec)	50% Confidence Limit (cm^2 sec)
0.0	.545, 0	.442, 0	.705, 0	.540, 0
0.1	.398, 0	.324, 0	.515, 0	.394, 0
0.2	.188, 0	.152, 0	.242, 0	.186, 0
0.3	.760, -1	.620, -1	.985, -1	.755, -1
0.4	.160, 0	.130, 0	.206, 0	.158, 0
0.5	.200, 1	.162, 1	.258, 1	.198, 1
0.6	.605, 1	.490, 1	.780, 1	.600, 1
0.7	.655, 1	.530, 1	.845, 1	.645, 1
0.8	.478, 1	.388, 1	.620, 1	.474, 1
0.9	.301, 1	.244, 1	.389, 1	.298, 1
1.0	.135, 1	.110, 1	.174, 1	.134, 1
1.1	.660, 0	.535, 0	.855, 0	.655, 0
1.2	.458, 0	.372, 0	.590, 0	.454, 0
1.3	.308, 0	.250, 0	.399, 0	.306, 0
1.4	.182, 0	.147, 0	.234, 0	.180, 0
1.5	.216, 0	.176, 0	.280, 0	.214, 0
1.6	.179, 0	.145, 0	.231, 0	.177, 0
1.7	.148, 0	.120, 0	.190, 0	.146, 0
1.8	.120, 0	.980, -1	.156, 0	.120, 0
1.9	.855, -1	.695, -1	.110, 0	.850, -1
2.0	.505, -1	.409, -1	.650, -1	.499, -1
2.1	.580, -1	.470, -1	.750, -1	.575, -1
2.2	.445, -1	.361, -1	.575, -1	.440, -1
2.3	.525, -1	.426, -1	.680, -1	.520, -1
2.4	.409, -1	.332, -1	.530, -1	.405, -1
2.5	.334, -1	.270, -1	.431, -1	.330, -1

TABLE A IV 2.11
POWER SPECTRUM
RECORD 069

N = 750 ΔT = 0.2 sec Maximum Lag = 25 Degrees of Freedom = 59

Wind Speed at 1.25m : mean 5.61 m/s σ 0.98 m/s
Wind Direction at 1.83m : mean 312 °T σ 9 °T

Estimated Fetch 3000 m
Air Temperature at 2.25m 9.78 C
Air Temperature at 0.50m 9.52 C
Water Temperature 12.45 C

Frequency (cps)	Power (cm^2 sec)	10% Confidence Limit (cm^2 sec)	90% Confidence Limit (cm^2 sec)	50% Confidence Limit (cm^2 sec)
0.0	.750, 0	.605, 0	.985, 0	.745, 0
0.1	.510, 0	.409, 0	.670, 0	.505, 0
0.2	.520, -1	.419, -1	.685, -1	.515, -1
0.3	.720, -1	.580, -1	.945, -1	.715, -1
0.4	.176, 1	.142, 1	.230, 1	.174, 1
0.5	.820, 1	.655, 1	.108, 2	.810, 1
0.6	.106, 2	.845, 1	.138, 2	.104, 2
0.7	.610, 1	.492, 1	.805, 1	.605, 1
0.8	.376, 1	.302, 1	.492, 1	.372, 1
0.9	.242, 1	.194, 1	.316, 1	.239, 1
1.0	.149, 1	.120, 1	.196, 1	.148, 1
1.1	.840, 0	.675, 0	.110, 1	.830, 0
1.2	.675, 0	.540, 0	.885, 0	.665, 0
1.3	.438, 0	.351, 0	.575, 0	.433, 0
1.4	.230, 0	.185, 0	.302, 0	.228, 0
1.5	.176, 0	.142, 0	.232, 0	.174, 0
1.6	.166, 0	.133, 0	.217, 0	.164, 0
1.7	.117, 0	.940, -1	.154, 0	.116, 0
1.8	.116, 0	.935, -1	.153, 0	.116, 0
1.9	.580, -1	.464, -1	.760, -1	.575, -1
2.0	.555, -1	.446, -1	.730, -1	.550, -1
2.1	.319, -1	.256, -1	.418, -1	.316, -1
2.2	.440, -1	.353, -1	.575, -1	.436, -1
2.3	.280, -1	.225, -1	.368, -1	.278, -1
2.4	.510, -1	.411, -1	.670, -1	.505, -1
2.5	.464, -1	.372, -1	.610, -1	.459, -1

TABLE A IV 2.12
POWER SPECTRUM
RECORD 070

N = 880 ΔT = 0.2 sec Maximum Lag = 25 Degrees of Freedom = 70

Wind Speed at 1.25m : mean 5.61 m/s σ 0.98 m/s
Wind Direction at 1.83m : mean 312 °T σ 9 °T

Estimated Fetch 3000 m
Air Temperature at 2.25m 9.78 C
Air Temperature at 0.50m 9.52 C
Water Temperature 12.45 C

Frequency (cps)	Power (cm^2 sec)	10% Confidence Limit (cm^2 sec)	90% Confidence Limit (cm^2 sec)	50% Confidence Limit (cm^2 sec)
0.0	.745, 0	.605, 0	.955, 0	.735, 0
0.1	.476, 0	.388, 0	.610, 0	.471, 0
0.2	.790, -1	.645, -1	.102, 0	.780, -1
0.3	.615, -1	.500, -1	.790, -1	.610, -1
0.4	.160, 1	.130, 1	.206, 1	.158, 1
0.5	.700, 1	.570, 1	.900, 1	.695, 1
0.6	.965, 1	.790, 1	.124, 2	.960, 1
0.7	.675, 1	.550, 1	.870, 1	.670, 1
0.8	.358, 1	.291, 1	.460, 1	.354, 1
0.9	.196, 1	.160, 1	.252, 1	.194, 1
1.0	.144, 1	.118, 1	.186, 1	.143, 1
1.1	.895, 0	.725, 0	.114, 1	.885, 0
1.2	.540, 0	.440, 0	.695, 0	.535, 0
1.3	.360, 0	.294, 0	.463, 0	.356, 0
1.4	.245, 0	.200, 0	.315, 0	.242, 0
1.5	.205, 0	.167, 0	.264, 0	.203, 0
1.6	.172, 0	.140, 0	.221, 0	.170, 0
1.7	.960, -1	.780, -1	.124, 0	.950, -1
1.8	.860, -1	.700, -1	.111, 0	.855, -1
1.9	.690, -1	.565, -1	.890, -1	.685, -1
2.0	.635, -1	.515, -1	.815, -1	.625, -1
2.1	.565, -1	.458, -1	.725, -1	.560, -1
2.2	.466, -1	.379, -1	.600, -1	.461, -1
2.3	.260, -1	.212, -1	.334, -1	.257, -1
2.4	.416, -1	.340, -1	.535, -1	.412, -1
2.5	.411, -1	.334, -1	.530, -1	.407, -1

TABLE A IV 2.13
POWER SPECTRUM
RECORD 075

N = 750 ΔT = 0.2 sec Maximum Lag = 25 Degrees of Freedom = 59

Wind Speed at 1.25m : mean 6.75 m/s σ = 1.09 m/s
Wind Direction at 1.83m : mean 325 °T σ = 8 °T

Estimated Fetch 3000 m
Air Temperature at 2.25m 9.92 C
Air Temperature at 0.50m 9.86 C
Water Temperature 12.52 C

Frequency (cps)	Power (cm^2 sec)	10% Confidence Limit (cm^2 sec)	90% Confidence Limit (cm^2 sec)	50% Confidence Limit (cm^2 sec)
0.0	.131, 1	.105, 1	.172, 1	.130, 1
0.1	.760, 0	.610, 0	.100, 1	.755, 0
0.2	.283, -1	.227, -1	.371, -1	.280, -1
0.3	.260, 0	.208, 0	.340, 0	.257, 0
0.4	.316, 1	.254, 1	.415, 1	.313, 1
0.5	.120, 2	.965, 1	.158, 2	.119, 2
0.6	.146, 2	.117, 2	.191, 2	.144, 2
0.7	.720, 1	.580, 1	.945, 1	.715, 1
0.8	.301, 1	.242, 1	.394, 1	.298, 1
0.9	.168, 1	.136, 1	.221, 1	.167, 1
1.0	.131, 1	.106, 1	.172, 1	.130, 1
1.1	.945, 0	.760, 0	.124, 1	.935, 0
1.2	.486, 0	.390, 0	.640, 0	.482, 0
1.3	.278, 0	.223, 0	.364, 0	.275, 0
1.4	.272, 0	.219, 0	.358, 0	.270, 0
1.5	.200, 0	.161, 0	.263, 0	.198, 0
1.6	.189, 0	.152, 0	.248, 0	.187, 0
1.7	.121, 0	.975, -1	.159, 0	.120, 0
1.8	.116, 0	.925, -1	.152, 0	.114, 0
1.9	.600, -1	.481, -1	.785, -1	.595, -1
2.0	.710, -1	.570, -1	.930, -1	.705, -1
2.1	.362, -1	.291, -1	.476, -1	.359, -1
2.2	.560, -1	.448, -1	.730, -1	.555, -1
2.3	.362, -1	.291, -1	.476, -1	.359, -1
2.4	.610, -1	.490, -1	.800, -1	.605, -1
2.5	.505, -1	.406, -1	.665, -1	.500, -1

TABLE A IV 2.14
POWER SPECTRUM
RECORD 076

N = 850 ΔT = 0.2 sec Maximum Lag = 25 Degrees of Freedom = 67

Wind Speed at 1.25m: mean 6.75 m/s σ 1.09 m/s
Wind Direction at 1.83m: mean 325 °T σ 8 °T

Estimated Fetch 3000 m
Air Temperature at 2.25m 9.92 C
Air Temperature at 0.50m 9.86 C
Water Temperature 12.52 C

Frequency (cps)	Power (cm^2 sec)	10% Confidence Limit (cm^2 sec)	90% Confidence Limit (cm^2 sec)	50% Confidence Limit (cm^2 sec)
0.0	.500, 0	.406, 0	.645, 0	.496, 0
0.1	.373, 0	.302, 0	.482, 0	.370, 0
0.2	.332, -1	.269, -1	.429, -1	.328, -1
0.3	.156, 0	.126, 0	.201, 0	.154, 0
0.4	.213, 1	.173, 1	.276, 1	.211, 1
0.5	.885, 1	.720, 1	.114, 2	.875, 1
0.6	.104, 2	.850, 1	.136, 2	.104, 2
0.7	.530, 1	.430, 1	.685, 1	.525, 1
0.8	.304, 1	.246, 1	.392, 1	.300, 1
0.9	.181, 1	.146, 1	.234, 1	.179, 1
1.0	.114, 1	.920, 0	.147, 1	.112, 1
1.1	.855, 0	.695, 0	.110, 1	.845, 0
1.2	.680, 0	.550, 0	.880, 0	.670, 0
1.3	.560, 0	.455, 0	.725, 0	.555, 0
1.4	.412, 0	.334, 0	.530, 0	.408, 0
1.5	.228, 0	.185, 0	.295, 0	.226, 0
1.6	.176, 0	.142, 0	.228, 0	.174, 0
1.7	.975, -1	.790, -1	.126, 0	.965, -1
1.8	.790, -1	.640, -1	.102, 0	.780, -1
1.9	.394, -1	.319, -1	.510, -1	.390, -1
2.0	.610, -1	.496, -1	.790, -1	.605, -1
2.1	.368, -1	.298, -1	.476, -1	.364, -1
2.2	.496, -1	.402, -1	.640, -1	.492, -1
2.3	.270, -1	.219, -1	.349, -1	.268, -1
2.4	.510, -1	.413, -1	.660, -1	.505, -1
2.5	.431, -1	.350, -1	.555, -1	.426, -1

TABLE A IV 2.15
POWER SPECTRUM
RECORD 081

N= 750 ΔT=0.2 sec Maximum Lag=25 Degrees of Freedom= 59

Wind Speed at 1.25m: mean 6.78 m/s σ 1.17 m/s

Wind Direction at 1.83m: mean 326 °T σ 8 °T

Estimated Fetch 3000 m

Air Temperature at 2.25m 1042 C

Air Temperature at 0.50m 1046 C

Water Temperature 12.69 C

Frequency (cps)	Power (cm^2 sec)	10% Confidence Limit (cm^2 sec)	90% Confidence Limit (cm^2 sec)	50% Confidence Limit (cm^2 sec)
0.0	.116, 1	.925, 0	.152, 1	.114, 1
0.1	.605, 0	.486, 0	.795, 0	.600, 0
0.2	.935,-1	.750,-1	.122, 0	.925,-1
0.3	.342,-1	.274,-1	.448,-1	.338,-1
0.4	.161, 0	.129, 0	.211, 0	.159, 0
0.5	.152, 1	.122, 1	.199, 1	.150, 1
0.6	.388, 1	.312, 1	.510, 1	.384, 1
0.7	.370, 1	.298, 1	.486, 1	.366, 1
0.8	.195, 1	.156, 1	.256, 1	.193, 1
0.9	.925, 0	.740, 0	.121, 1	.915, 0
1.0	.660, 0	.530, 0	.865, 0	.650, 0
1.1	.565, 0	.454, 0	.740, 0	.560, 0
1.2	.378, 0	.304, 0	.496, 0	.374, 0
1.3	.314, 0	.252, 0	.412, 0	.310, 0
1.4	.280, 0	.225, 0	.368, 0	.278, 0
1.5	.176, 0	.142, 0	.230, 0	.174, 0
1.6	.132, 0	.106, 0	.172, 0	.130, 0
1.7	.945,-1	.760,-1	.124, 0	.935,-1
1.8	.740,-1	.595,-1	.970,-1	.730,-1
1.9	.630,-1	.505,-1	.825,-1	.625,-1
2.0	.438,-1	.351,-1	.575,-1	.433,-1
2.1	.324,-1	.260,-1	.425,-1	.321,-1
2.2	.272,-1	.219,-1	.358,-1	.270,-1
2.3	.206,-1	.166,-1	.270,-1	.204,-1
2.4	.206,-1	.165,-1	.270,-1	.204,-1
2.5	.177,-1	.142,-1	.232,-1	.175,-1

TABLE AIV 2.16
POWER SPECTRUM
RECORD 082

N= 888 ΔT=0.2 sec Maximum Lag=25 Degrees of Freedom= 70

Wind Speed at 1.25m mean 6.78m/s σ 1.17 m/s
Wind Direction at 1.83m mean 326 °T σ 8 °T

Estimated Fetch 3000 m
Air Temperature at 2.25m 10.42 C
Air Temperature at 0.50m 10.46 C
Water Temperature 12.69 C

Frequency (cps)	Power (cm^2 sec)	10% Confidence Limit (cm^2 sec)	90% Confidence Limit (cm^2 sec)	50% Confidence Limit (cm^2 sec)
0.0	.905, 0	.740, 0	.116, 1	.900, 0
0.1	.450, 0	.366, 0	.580, 0	.446, 0
0.2	.740,-1	.605,-1	.950,-1	.735,-1
0.3	.760,-2	.620,-2	.980,-2	.755,-2
0.4	.108, 0	.880,-1	.139, 0	.107, 0
0.5	.118, 1	.965, 0	.152, 0	.117, 1
0.6	.378, 1	.308, 1	.486, 1	.374, 1
0.7	.424, 1	.346, 1	.545, 1	.420, 1
0.8	.260, 1	.212, 1	.334, 1	.257, 1
0.9	.140, 1	.114, 1	.180, 1	.138, 1
1.0	.880, 0	.720, 0	.114, 1	.875, 0
1.1	.590, 0	.482, 0	.760, 0	.585, 0
1.2	.340, 0	.276, 0	.436, 0	.336, 0
1.3	.290, 0	.236, 0	.374, 0	.288, 0
1.4	.240, 0	.196, 0	.308, 0	.238, 0
1.5	.184, 0	.150, 0	.237, 0	.182, 0
1.6	.118, 0	.965,-1	.152, 0	.118, 0
1.7	.970,-1	.790,-1	.125, 0	.965,-1
1.8	.775,-1	.635,-1	.100, 0	.770,-1
1.9	.605,-1	.494,-1	.780,-1	.600,-1
2.0	.326,-1	.266,-1	.420,-1	.324,-1
2.1	.360,-1	.294,-1	.463,-1	.356,-1
2.2	.324,-1	.264,-1	.416,-1	.321,-1
2.3	.355,-1	.289,-1	.456,-1	.352,-1
2.4	.184,-1	.150,-1	.238,-1	.183,-1
2.5	.138,-1	.112,-1	.176,-1	.136,-1

TABLE A IV 2.17
POWER SPECTRUM
RECORD 083

N= 750 ΔT=0.2 sec Maximum Lag=25 Degrees of Freedom= 59

Wind Speed at 1.25m: mean 7.77 m/s σ 1.16 m/s
Wind Direction at 1.83m: mean 314 °T σ 12 °T

Estimated Fetch 2700 m
Air Temperature at 2.25m 10.76 C
Air Temperature at 0.50m 10.61 C
Water Temperature 12.72 C

Frequency (cps)	Power (cm^2 sec)	10% Confidence Limit (cm^2 sec)	90% Confidence Limit (cm^2 sec)	50% Confidence Limit (cm^2 sec)
0.0	.358, 1	.287, 1	.469, 1	.354, 1
0.1	.176, 1	.141, 1	.230, 1	.174, 1
0.2	.640, -1	.515, -1	.840, -1	.635, -1
0.3	.100, 0	.805, -1	.132, 0	.995, -1
0.4	.100, 1	.805, 0	.132, 1	.995, 0
0.5	.690, 1	.555, 1	.905, 1	.685, 1
0.6	.102, 2	.825, 1	.134, 2	.102, 2
0.7	.540, 1	.434, 1	.710, 1	.535, 1
0.8	.293, 1	.236, 1	.384, 1	.290, 1
0.9	.190, 1	.152, 1	.248, 1	.188, 1
1.0	.955, 0	.765, 0	.125, 1	.945, 0
1.1	.481, 0	.386, 0	.630, 0	.476, 0
1.2	.384, 0	.308, 0	.505, 0	.380, 0
1.3	.225, 0	.180, 0	.295, 0	.222, 0
1.4	.216, 0	.174, 0	.284, 0	.214, 0
1.5	.152, 0	.122, 0	.200, 0	.151, 0
1.6	.150, 0	.121, 0	.198, 0	.149, 0
1.7	.805, -1	.645, -1	.106, 0	.795, -1
1.8	.740, -1	.595, -1	.970, -1	.735, -1
1.9	.427, -1	.343, -1	.560, -1	.422, -1
2.0	.645, -1	.520, -1	.845, -1	.640, -1
2.1	.424, -1	.340, -1	.555, -1	.420, -1
2.2	.590, -1	.473, -1	.770, -1	.585, -1
2.3	.360, -1	.289, -1	.472, -1	.356, -1
2.4	.575, -1	.462, -1	.755, -1	.570, -1
2.5	.456, -1	.366, -1	.600, -1	.452, -1

TABLE A IV 2.18
POWER SPECTRUM
RECORD 084

N = 566 ΔT = 0.2 sec Maximum Lag = 25 Degrees of Freedom = 45

Wind Speed at 1.25m : mean 7.77 m/s σ 1.16 m/s
Wind Direction at 1.83m : mean 314 °T σ 12 °T

Estimated Fetch 2700 m
Air Temperature at 2.25m 10.76 C
Air Temperature at 0.50m 10.61 C
Water Temperature 12.72 C

Frequency (cps)	Power (cm^2 sec)	10% Confidence Limit (cm^2 sec)	90% Confidence Limit (cm^2 sec)	50% Confidence Limit (cm^2 sec)
0.0	.176, 1	.137, 1	.238, 1	.173, 1
0.1	.930, 0	.725, 0	.126, 1	.915, 0
0.2	.146, 0	.114, 0	.198, 0	.144, 0
0.3	.780, -1	.610, 0	.106, 0	.770, -1
0.4	.130, 1	.102, 1	.176, 1	.128, 1
0.5	.466, 1	.364, 1	.630, 1	.458, 1
0.6	.710, 1	.555, 1	.960, 1	.700, 1
0.7	.670, 1	.525, 1	.905, 1	.660, 1
0.8	.404, 1	.316, 1	.545, 1	.398, 1
0.9	.222, 1	.174, 1	.300, 1	.219, 1
1.0	.132, 1	.102, 1	.178, 1	.130, 1
1.1	.765, 0	.600, 0	.104, 1	.755, 0
1.2	.442, 0	.346, 0	.600, 0	.436, 0
1.3	.296, 0	.231, 0	.400, 0	.292, 0
1.4	.170, 0	.132, 0	.229, 0	.167, 0
1.5	.132, 0	.104, 0	.178, 0	.130, 0
1.6	.134, 0	.104, 0	.181, 0	.132, 0
1.7	.110, 0	.855, -1	.148, 0	.108, 0
1.8	.760, -1	.595, -1	.102, 0	.745, -1
1.9	.715, -1	.560, -1	.965, -1	.705, -1
2.0	.680, -1	.535, -1	.920, -1	.670, -1
2.1	.560, -1	.436, -1	.755, -1	.550, -1
2.2	.398, -1	.312, -1	.540, -1	.392, -1
2.3	.445, -1	.348, -1	.600, -1	.438, -1
2.4	.402, -1	.314, -1	.540, -1	.396, -1
2.5	.300, -1	.234, -1	.406, -1	.296, -1

TABLE A IV 2.19
POWER SPECTRUM
RECORD 085

N = 750 ΔT = 0.2 sec Maximum Lag = 25 Degrees of Freedom = 59

Wind Speed at 1.25m: mean 7.87 m/s σ 1.31 m/s
Wind Direction at 1.83m: mean 308 °T σ 9 °T

Estimated Fetch 2800 m
Air Temperature at 2.25m 10.53 C
Air Temperature at 0.50m 8.99 C
Water Temperature 12.70 C

Frequency (cps)	Power (cm^2 sec)	10% Confidence Limit (cm^2 sec)	90% Confidence Limit (cm^2 sec)	50% Confidence Limit (cm^2 sec)
0.0	.282, 1	.226, 1	.369, 1	.278, 1
0.1	.144, 1	.116, 1	.189, 1	.143, 1
0.2	.474, -1	.380, -1	.620, -1	.468, -1
0.3	.525, -1	.422, -1	.690, -1	.520, -1
0.4	.170, 1	.137, 1	.224, 1	.169, 1
0.5	.855, 1	.685, 1	.112, 2	.845, 1
0.6	.109, 2	.875, 1	.143, 2	.108, 2
0.7	.585, 1	.471, 1	.770, 1	.580, 1
0.8	.280, 1	.225, 1	.368, 1	.278, 1
0.9	.142, 1	.114, 1	.186, 1	.141, 1
1.0	.935, 0	.750, 0	.123, 1	.925, 0
1.1	.735, 0	.590, 0	.965, 0	.730, 0
1.2	.515, 0	.415, 0	.680, 0	.510, 0
1.3	.265, 0	.212, 0	.348, 0	.262, 0
1.4	.220, 0	.177, 0	.288, 0	.218, 0
1.5	.149, 0	.120, 0	.196, 0	.148, 0
1.6	.126, 0	.102, 0	.166, 0	.125, 0
1.7	.745, -1	.595, -1	.975, -1	.735, -1
1.8	.955, -1	.765, -1	.125, 0	.945, -1
1.9	.575, -1	.462, -1	.755, -1	.570, -1
2.0	.505, -1	.405, -1	.660, -1	.499, -1
2.1	.207, -1	.166, -1	.272, -1	.205, -1
2.2	.420, -1	.336, -1	.550, -1	.415, -1
2.3	.218, -1	.176, -1	.286, -1	.216, -1
2.4	.456, -1	.366, -1	.595, -1	.451, -1
2.5	.404, -1	.324, -1	.530, -1	.400, -1

TABLE A IV 2.20
POWER SPECTRUM
RECORD 086

N= 870 ΔT=0.2 sec Maximum Lag=25 Degrees of Freedom=69

Wind Speed at 1.25m: mean 7.87 m/s σ 1.31 m/s
Wind Direction at 1.83m: mean 308 °T σ 9 °T

Estimated Fetch 2800 m
Air Temperature at 2.25m 10.53 C
Air Temperature at 0.50m 8.99 C
Water Temperature 12.70 C

Frequency (cps)	Power (cm^2 sec)	10% Confidence Limit (cm^2 sec)	90% Confidence Limit (cm^2 sec)	50% Confidence Limit (cm^2 sec)
0.0	.117, 1	.950, 0	.150, 1	.116, 1
0.1	.755, 0	.615, 0	.975, 0	.750, 0
0.2	.650, -2	.530, -2	.840, -2	.645, -2
0.3	.700, -1	.570, -1	.900, -1	.695, -1
0.4	.230, 1	.187, 1	.296, 1	.228, 1
0.5	.106, 2	.860, 1	.136, 2	.105, 2
0.6	.121, 2	.985, 1	.156, 2	.120, 2
0.7	.550, 1	.448, 1	.710, 1	.545, 1
0.8	.229, 1	.186, 1	.295, 1	.227, 1
0.9	.115, 1	.935, 0	.148, 1	.114, 1
1.0	.855, 0	.695, 0	.110, 1	.845, 0
1.1	.468, 0	.380, 0	.605, 0	.464, 0
1.2	.434, 0	.354, 0	.560, 0	.430, 0
1.3	.270, 0	.220, 0	.348, 0	.268, 0
1.4	.220, 0	.179, 0	.283, 0	.218, 0
1.5	.134, 0	.109, 0	.172, 0	.132, 0
1.6	.144, 0	.116, 0	.184, 0	.142, 0
1.7	.700, -1	.570, -1	.905, -1	.695, -1
1.8	.755, -1	.615, -1	.975, -1	.750, -1
1.9	.330, -1	.268, -1	.424, -1	.326, -1
2.0	.645, -1	.525, -1	.830, -1	.640, -1
2.1	.308, -1	.251, -1	.398, -1	.306, -1
2.2	.470, -1	.383, -1	.605, -1	.466, -1
2.3	.146, -1	.119, -1	.189, -1	.145, -1
2.4	.635, -1	.515, -1	.820, -1	.630, -1
2.5	.560, -1	.456, -1	.725, -1	.555, -1

TABLE A IV 2.21
POWER SPECTRUM
RECORD 087

N = 750 ΔT = 0.2 sec Maximum Lag = 25 Degrees of Freedom = 59

Wind Speed at 1.25m mean 7.21 m/s σ 1.45 m/s
Wind Direction at 1.83m mean 302 °T σ 8 °T

Estimated Fetch 2300 m
Air Temperature at 2.25m 10.89 C
Air Temperature at 0.50m 10.56 C
Water Temperature 12.79 C

Frequency (cps)	Power (cm^2 sec)	10% Confidence Limit (cm^2 sec)	90% Confidence Limit (cm^2 sec)	50% Confidence Limit (cm^2 sec)
0.0	.116, 1	.935, 0	.152, 1	.115, 1
0.1	.132, 2	.106, 2	.173, 2	.130, 2
0.2	.200, 1	.160, 1	.262, 1	.198, 1
0.3	.660, 0	.530, 0	.865, 0	.655, 0
0.4	.690, 0	.555, 0	.905, 0	.680, 0
0.5	.975, 0	.785, 0	.128, 1	.970, 0
0.6	.184, 1	.148, 1	.242, 1	.182, 1
0.7	.268, 1	.215, 1	.351, 1	.265, 1
0.8	.270, 1	.217, 1	.354, 1	.268, 1
0.9	.204, 1	.164, 1	.268, 1	.202, 1
1.0	.127, 1	.102, 1	.166, 1	.126, 1
1.1	.770, 0	.620, 0	.101, 1	.765, 0
1.2	.494, 0	.396, 0	.650, 0	.489, 0
1.3	.348, 0	.279, 0	.456, 0	.344, 0
1.4	.238, 0	.191, 0	.312, 0	.236, 0
1.5	.236, 0	.190, 0	.310, 0	.234, 0
1.6	.218, 0	.174, 0	.285, 0	.215, 0
1.7	.178, 0	.142, 0	.232, 0	.176, 0
1.8	.140, 0	.112, 0	.184, 0	.139, 0
1.9	.110, 0	.890, -1	.145, 0	.110, 0
2.0	.930, -1	.745, -1	.122, 0	.920, -1
2.1	.955, -1	.765, -1	.125, 0	.945, -1
2.2	.780, -1	.625, -1	.102, 0	.770, -1
2.3	.790, -1	.635, -1	.104, 0	.780, -1
2.4	.505, -1	.407, -1	.665, -1	.500, -1
2.5	.120, -1	.960, -2	.156, -1	.118, -1

TABLE A IV 2.22
POWER SPECTRUM
RECORD 088

N = 870 ΔT = 0.2 sec Maximum Lag = 25 Degrees of Freedom = 69

Wind Speed at 1.25m : mean 7.21 m/s σ 1.45 m/s
Wind Direction at 1.83m : mean 302 °T σ 8 °T

Estimated Fetch 2300 m
Air Temperature at 2.25m 10.89 C
Air Temperature at 0.50m 10.56 C
Water Temperature 12.79 C

Frequency (cps)	Power (cm^2 sec)	10% Confidence Limit (cm^2 sec)	90% Confidence Limit (cm^2 sec)	50% Confidence Limit (cm^2 sec)
0.0	.150, 1	.122, 1	.193, 1	.148, 1
0.1	.845, 0	.685, 0	.108, 1	.835, 0
0.2	.144, 0	.118, 0	.186, 0	.143, 0
0.3	.710,-2	.575,-2	.915,-2	.705,-2
0.4	.189, 0	.154, 0	.243, 0	.187, 0
0.5	.162, 1	.132, 1	.208, 1	.160, 1
0.6	.424, 1	.345, 1	.545, 1	.420, 1
0.7	.432, 1	.352, 1	.555, 1	.428, 1
0.8	.257, 1	.209, 1	.331, 1	.254, 1
0.9	.136, 1	.110, 1	.175, 1	.134, 1
1.0	.740, 0	.605, 0	.955, 0	.735, 0
1.1	.555, 0	.452, 0	.715, 0	.550, 0
1.2	.434, 0	.354, 0	.560, 0	.430, 0
1.3	.360, 0	.293, 0	.464, 0	.356, 0
1.4	.260, 0	.212, 0	.334, 0	.257, 0
1.5	.198, 0	.160, 0	.254, 0	.196, 0
1.6	.152, 0	.124, 0	.196, 0	.151, 0
1.7	.985,-1	.800,-1	.126, 0	.975,-1
1.8	.590,-1	.481,-1	.760,-1	.585,-1
1.9	.530,-1	.433,-1	.685,-1	.525,-1
2.0	.355,-1	.288,-1	.457,-1	.352,-1
2.1	.434,-1	.354,-1	.560,-1	.430,-1
2.2	.406,-1	.330,-1	.525,-1	.402,-1
2.3	.370,-1	.302,-1	.477,-1	.366,-1
2.4	.181,-1	.147,-1	.233,-1	.179,-1
2.5	.143,-1	.116,-1	.184,-1	.142,-1

TABLE A IV 2.23
POWER SPECTRUM
RECORD 093

N = 750 ΔT = 0.2 sec Maximum Lag = 25 Degrees of Freedom = 59

Wind Speed at 1.25m : mean 8.20m/s σ 1.00 m/s
Wind Direction at 1.83m : mean 305 °T σ 6 °T

Estimated Fetch 2500 m
Air Temperature at 2.25m 12.02 C
Air Temperature at 0.50m 11.86 C
Water Temperature 12.87 C

Frequency (cps)	Power (cm^2 sec)	10% Confidence Limit (cm^2 sec)	90% Confidence Limit (cm^2 sec)	50% Confidence Limit (cm^2 sec)
0.0	.152, 0	.122, 0	.198, 0	.150, 0
0.1	.101, 0	.810, -1	.132, 0	.100, 0
0.2	.650, -1	.520, -1	.855, -1	.645, -1
0.3	.182, -1	.146, -1	.240, -1	.181, -1
0.4	.590, 0	.475, 0	.775, 0	.585, 0
0.5	.545, 1	.436, 1	.710, 1	.535, 1
0.6	.130, 2	.104, 2	.170, 2	.128, 2
0.7	.115, 2	.925, 1	.151, 2	.114, 2
0.8	.570, 1	.458, 1	.750, 1	.565, 1
0.9	.326, 1	.262, 1	.428, 1	.324, 1
1.0	.218, 1	.175, 1	.286, 1	.216, 1
1.1	.120, 1	.960, 0	.157, 1	.118, 1
1.2	.700, 0	.565, 0	.920, 0	.695, 0
1.3	.635, 0	.510, 0	.835, 0	.630, 0
1.4	.474, 0	.380, 0	.620, 0	.468, 0
1.5	.352, 0	.283, 0	.462, 0	.349, 0
1.6	.246, 0	.198, 0	.323, 0	.244, 0
1.7	.211, 0	.170, 0	.277, 0	.209, 0
1.8	.159, 0	.128, 0	.208, 0	.158, 0
1.9	.160, 0	.128, 0	.210, 0	.158, 0
2.0	.144, 0	.116, 0	.190, 0	.143, 0
2.1	.114, 0	.920, -1	.150, 0	.114, 0
2.2	.935, -1	.750, -1	.122, 0	.925, -1
2.3	.102, 0	.820, -1	.134, 0	.102, 0
2.4	.585, -1	.471, -1	.770, -1	.580, -1
2.5	.361, -1	.290, -1	.474, -1	.358, -1

TABLE A IV 2.24
POWER SPECTRUM
RECORD 094

N= 860 ΔT=0.2 sec Maximum Lag=25 Degrees of Freedom= 68

Wind Speed at 1.25m: mean 8.20m/s σ 1.00 m/s
Wind Direction at 1.83m: mean 305 °T σ 6 °T

Estimated Fetch 2500 m
Air Temperature at 2.25m 12.02 C
Air Temperature at 0.50m 11.86 C
Water Temperature 12.87 C

Frequency (cps)	Power (cm^2 sec)	10% Confidence Limit (cm^2 sec)	90% Confidence Limit (cm^2 sec)	50% Confidence Limit (cm^2 sec)
0.0	.890, 0	.725, 0	.115, 1	.885, 0
0.1	.525, 0	.428, 0	.680, 0	.520, 0
0.2	.342, -1	.278, -1	.442, -1	.338, -1
0.3	.960, -1	.780, -1	.124, 0	.950, -1
0.4	.815, 0	.660, 0	.105, 1	.805, 0
0.5	.675, 1	.545, 1	.870, 1	.665, 0
0.6	.130, 2	.106, 2	.168, 2	.130, 2
0.7	.124, 2	.100, 2	.160, 2	.122, 2
0.8	.935, 1	.760, 1	.121, 2	.925, 1
0.9	.505, 1	.410, 1	.650, 1	.499, 1
1.0	.238, 1	.193, 1	.306, 1	.236, 1
1.1	.146, 1	.118, 1	.188, 1	.144, 1
1.2	.110, 1	.900, 0	.142, 1	.110, 1
1.3	.645, 0	.525, 0	.835, 0	.640, 0
1.4	.452, 0	.368, 0	.585, 0	.448, 0
1.5	.340, 0	.276, 0	.438, 0	.336, 0
1.6	.286, 0	.232, 0	.368, 0	.282, 0
1.7	.209, 0	.170, 0	.270, 0	.207, 0
1.8	.194, 0	.157, 0	.250, 0	.192, 0
1.9	.128, 0	.104, 0	.166, 0	.127, 0
2.0	.106, 0	.860, -1	.136, 0	.105, 0
2.1	.740, -1	.600, -1	.950, -1	.730, -1
2.2	.945, -1	.770, -1	.122, 0	.935, -1
2.3	.790, -1	.645, -1	.102, 0	.785, -1
2.4	.970, -1	.790, -1	.125, 0	.960, -1
2.5	.760, -1	.615, -1	.980, -1	.750, -1

High-Resolution Spectra of the Water Surface--Plots of the Band from 0.7 to 2.1 cps

Figures AIV 3.09.1 to AIV 3.24.1 on pages AIV-113 to AIV-128 show the spectrum of each November record on the band from 0.7 to 2.1 cps on a logarithm versus logarithm scale. The power estimates occur every 0.05 cps as opposed to the 0.1 cps previously used. Each estimate is the average power in a band 0.1 cps wide. There are no high-resolution analyses for the July records; consequently, there are no figures numbered AIV 3.01.1 to AIV 3.08.1.

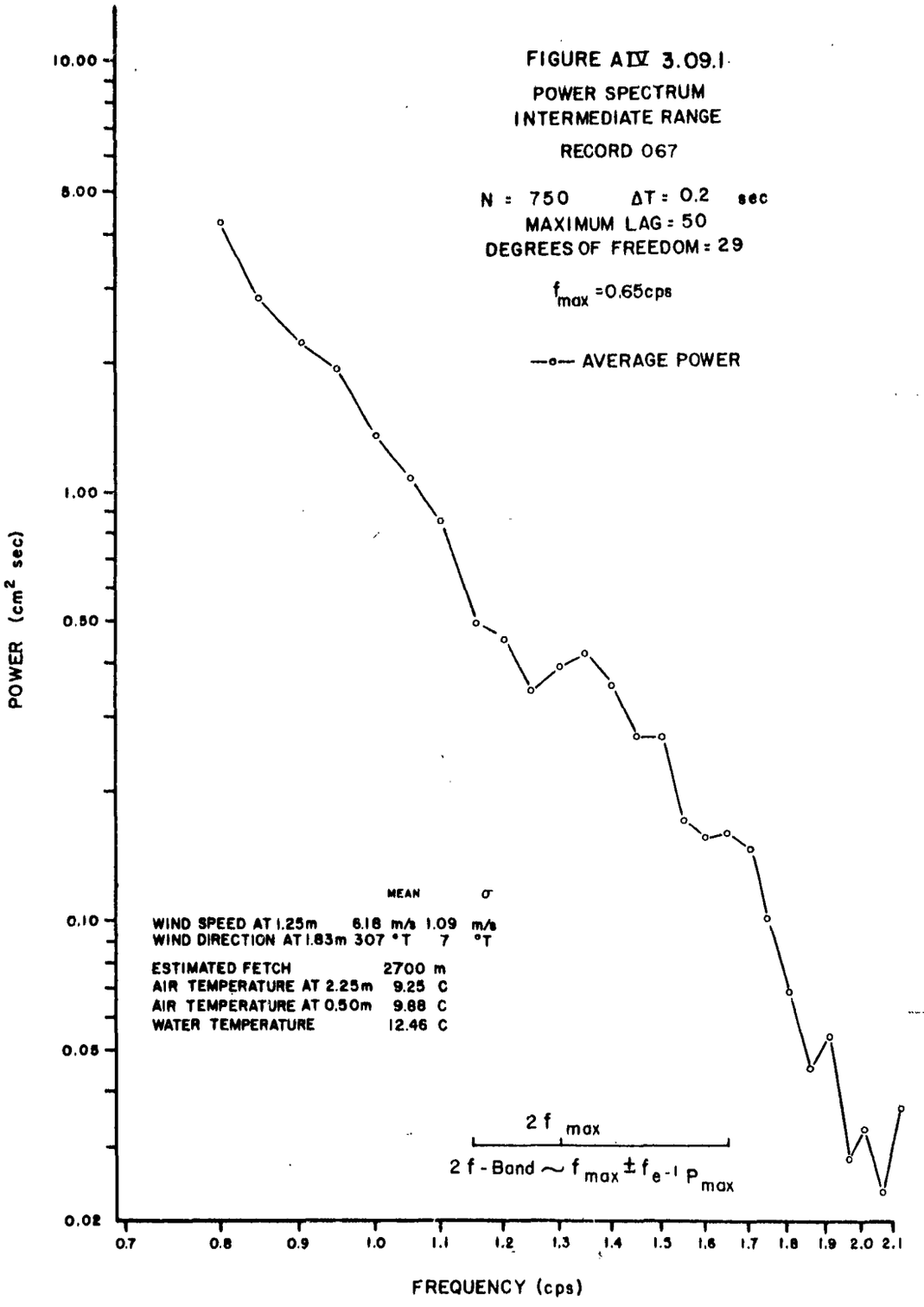


FIGURE AIV 3.09.1
POWER SPECTRUM
INTERMEDIATE RANGE
RECORD 067
N = 750 ΔT = 0.2 sec
MAXIMUM LAG = 50
DEGREES OF FREEDOM = 29
f_{max} = 0.65cps
—o— AVERAGE POWER
POWER (cm² sec)
10.00
5.00
1.00
0.50
0.10
0.05
0.02
MEAN σ
WIND SPEED AT 1.25m 6.18 m/s 1.09 m/s
WIND DIRECTION AT 1.83m 307 °T 7 °T
ESTIMATED FETCH 2700 m
AIR TEMPERATURE AT 2.25m 9.25 C
AIR TEMPERATURE AT 0.50m 9.88 C
WATER TEMPERATURE 12.46 C
2 f max
2 f - Band ~ $f_{max} \pm f_{e-1} P_{max}$
0.7 0.8 0.9 1.0 1.1 1.2 1.3 1.4 1.5 1.6 1.7 1.8 1.9 2.0 2.1
FREQUENCY (cps)

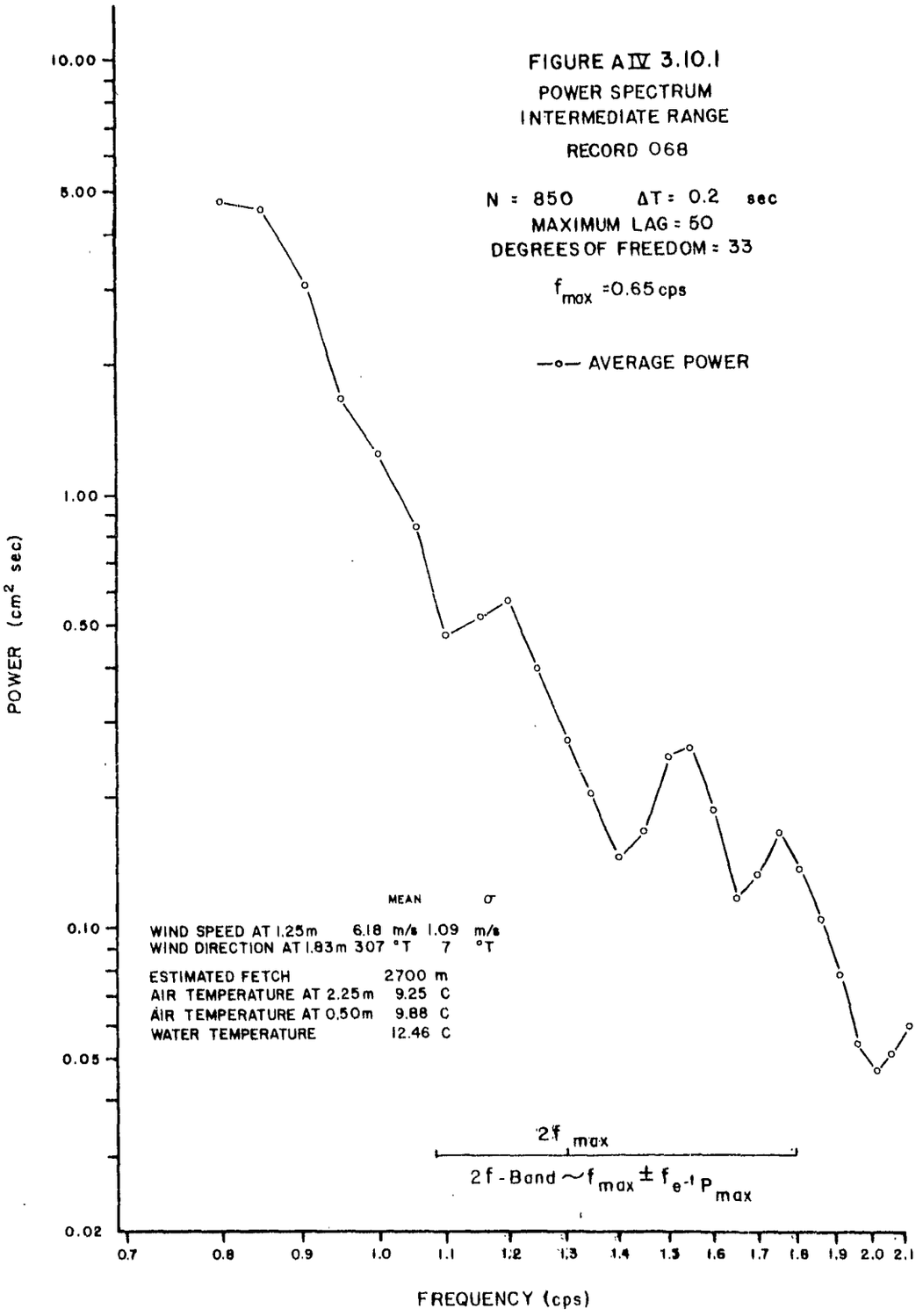


FIGURE AIV 3.10.1
POWER SPECTRUM
INTERMEDIATE RANGE
RECORD 068
N = 850 ΔT = 0.2 sec
MAXIMUM LAG = 50
DEGREES OF FREEDOM = 33
f_{max} = 0.65 cps
—o— AVERAGE POWER
MEAN σ
WIND SPEED AT 1.25m 6.18 m/s 1.09 m/s
WIND DIRECTION AT 1.83m 307 °T 7 °T
ESTIMATED FETCH 2700 m
AIR TEMPERATURE AT 2.25m 9.25 C
AIR TEMPERATURE AT 0.50m 9.88 C
WATER TEMPERATURE 12.46 C
$2f_{max}$
2f-Band ~ $f_{max} \pm f_{e^{-1}} P_{max}$
POWER (cm² sec)
10.00
5.00
1.00
0.50
0.10
0.05
0.02
0.7 0.8 0.9 1.0 1.1 1.2 1.3 1.4 1.5 1.6 1.7 1.8 1.9 2.0 2.1
FREQUENCY (cps)

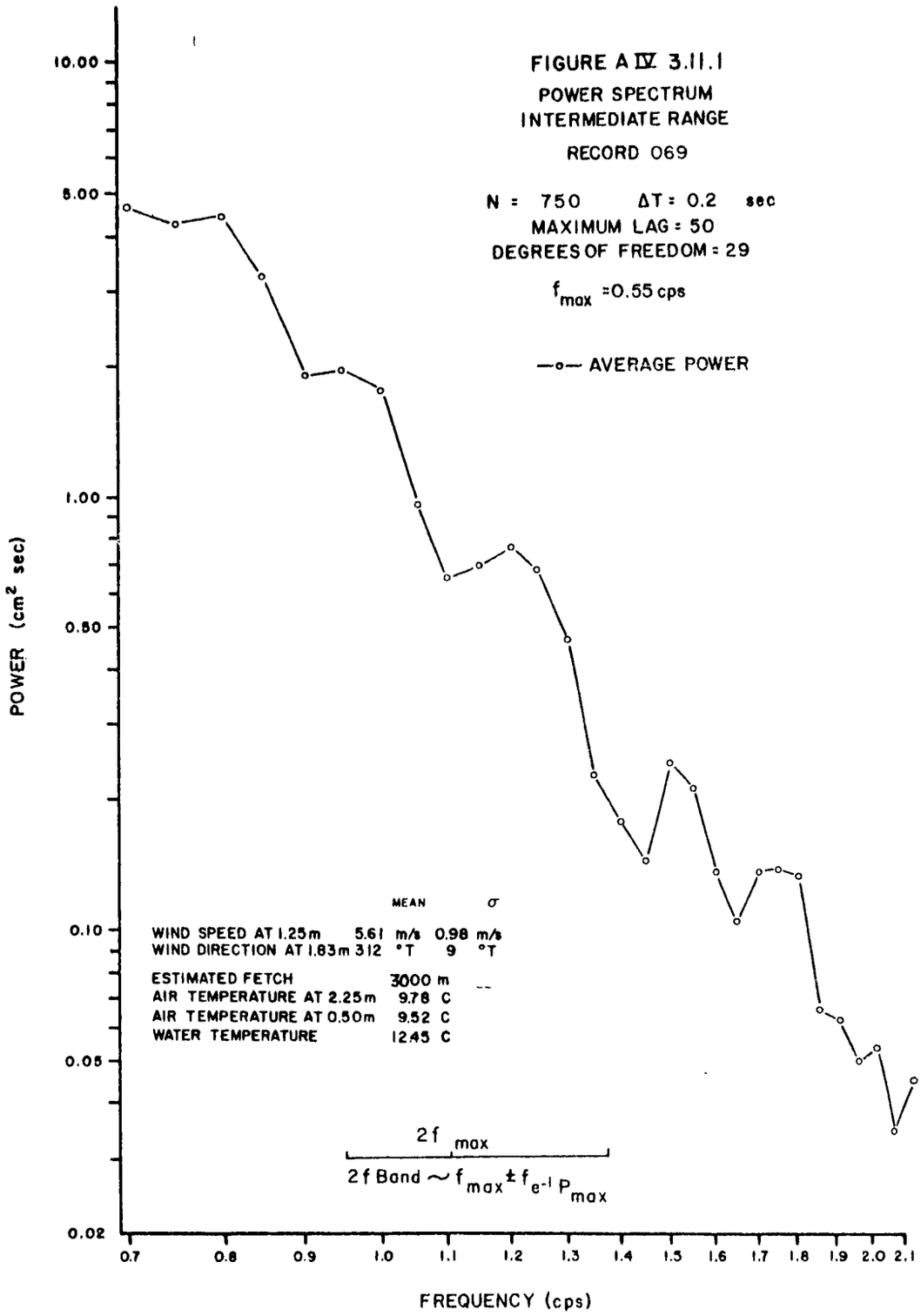


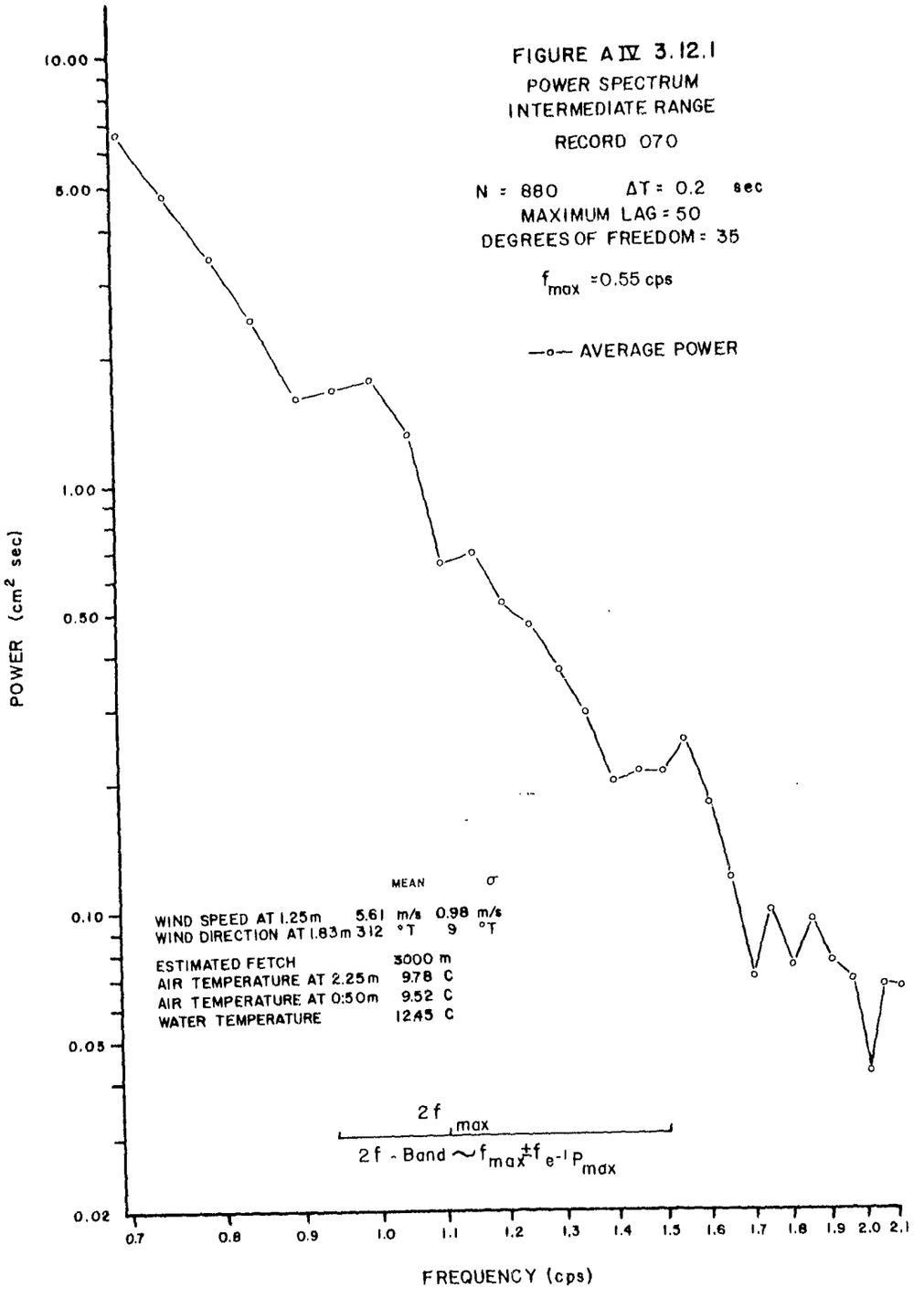
FIGURE A IV 3.11.1
POWER SPECTRUM
INTERMEDIATE RANGE
RECORD 069
N = 750 ΔT = 0.2 sec
MAXIMUM LAG = 50
DEGREES OF FREEDOM = 29
f_{max} = 0.55 cps
—o— AVERAGE POWER
POWER (cm² sec)
10.00
5.00
1.00
0.50
0.10
0.05
0.02
MEAN σ
WIND SPEED AT 1.25m 5.61 m/s 0.98 m/s
WIND DIRECTION AT 1.83m 312 °T 9 °T
ESTIMATED FETCH 3000 m
AIR TEMPERATURE AT 2.25m 9.78 C
AIR TEMPERATURE AT 0.50m 9.52 C
WATER TEMPERATURE 12.45 C
2f max
2f Band ~ $f_{max} \pm f_{e^{-1}} P_{max}$
0.7 0.8 0.9 1.0 1.1 1.2 1.3 1.4 1.5 1.6 1.7 1.8 1.9 2.0 2.1
FREQUENCY (cps)

FIGURE A IV 3.12.1
POWER SPECTRUM
INTERMEDIATE RANGE
RECORD 070

N = 880 ΔT = 0.2 sec
MAXIMUM LAG = 50
DEGREES OF FREEDOM = 35

f_{max} = 0.55 cps

—o— AVERAGE POWER



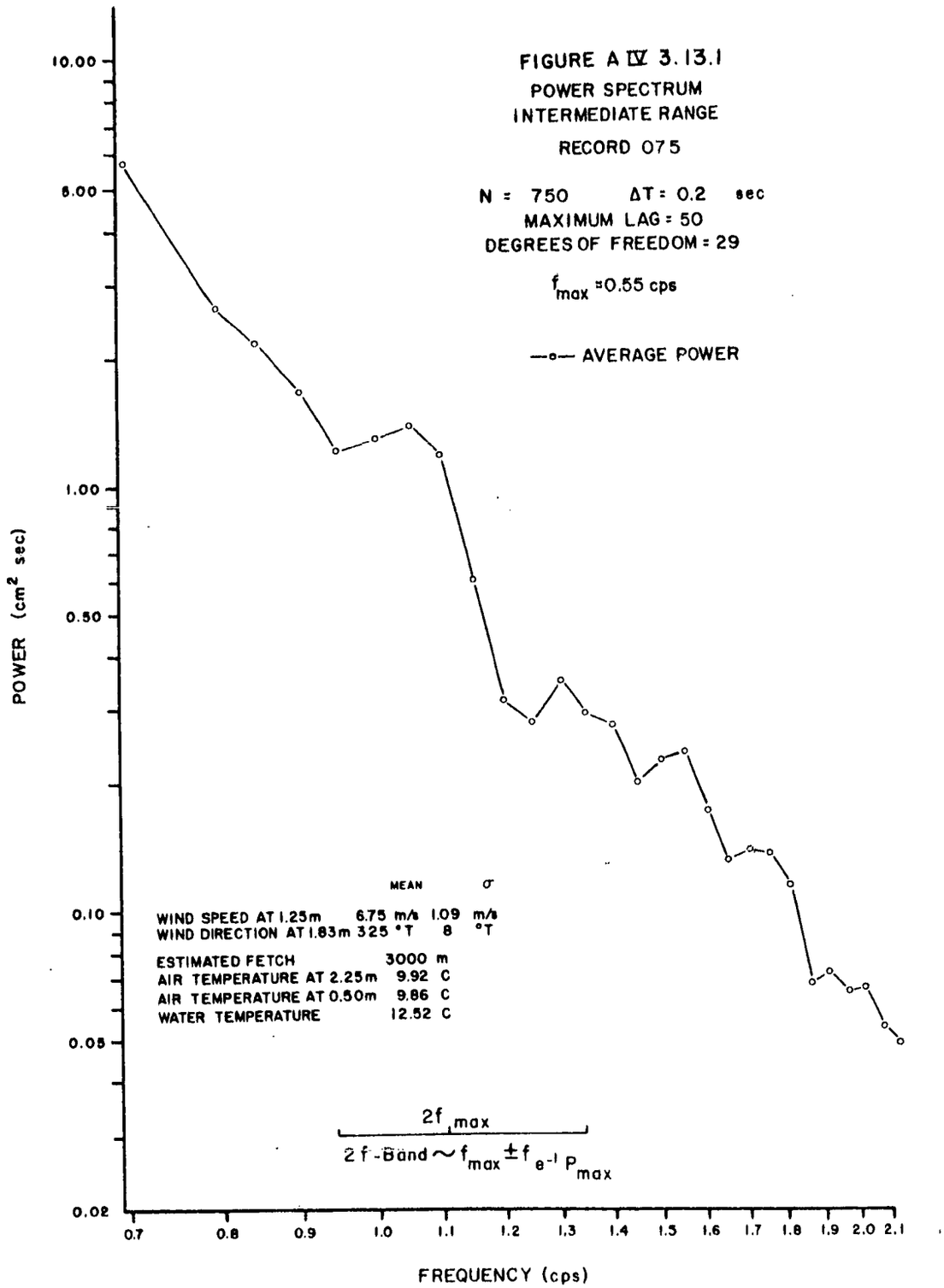


FIGURE A IV 3.13.1
POWER SPECTRUM
INTERMEDIATE RANGE
RECORD 075
N = 750 ΔT = 0.2 sec
MAXIMUM LAG = 50
DEGREES OF FREEDOM = 29
f_{max} = 0.55 cps
—o— AVERAGE POWER
POWER (cm² sec)
10.00
5.00
1.00
0.50
0.10
0.05
0.02
MEAN σ
WIND SPEED AT 1.25m 6.75 m/s 1.09 m/s
WIND DIRECTION AT 1.83m 325 °T 8 °T
ESTIMATED FETCH 3000 m
AIR TEMPERATURE AT 2.25m 9.92 C
AIR TEMPERATURE AT 0.50m 9.86 C
WATER TEMPERATURE 12.52 C
$2f_{max}$
2 f-Band ~ $f_{max} \pm f_{e^{-1}} P_{max}$
0.7 0.8 0.9 1.0 1.1 1.2 1.3 1.4 1.5 1.6 1.7 1.8 1.9 2.0 2.1
FREQUENCY (cps)

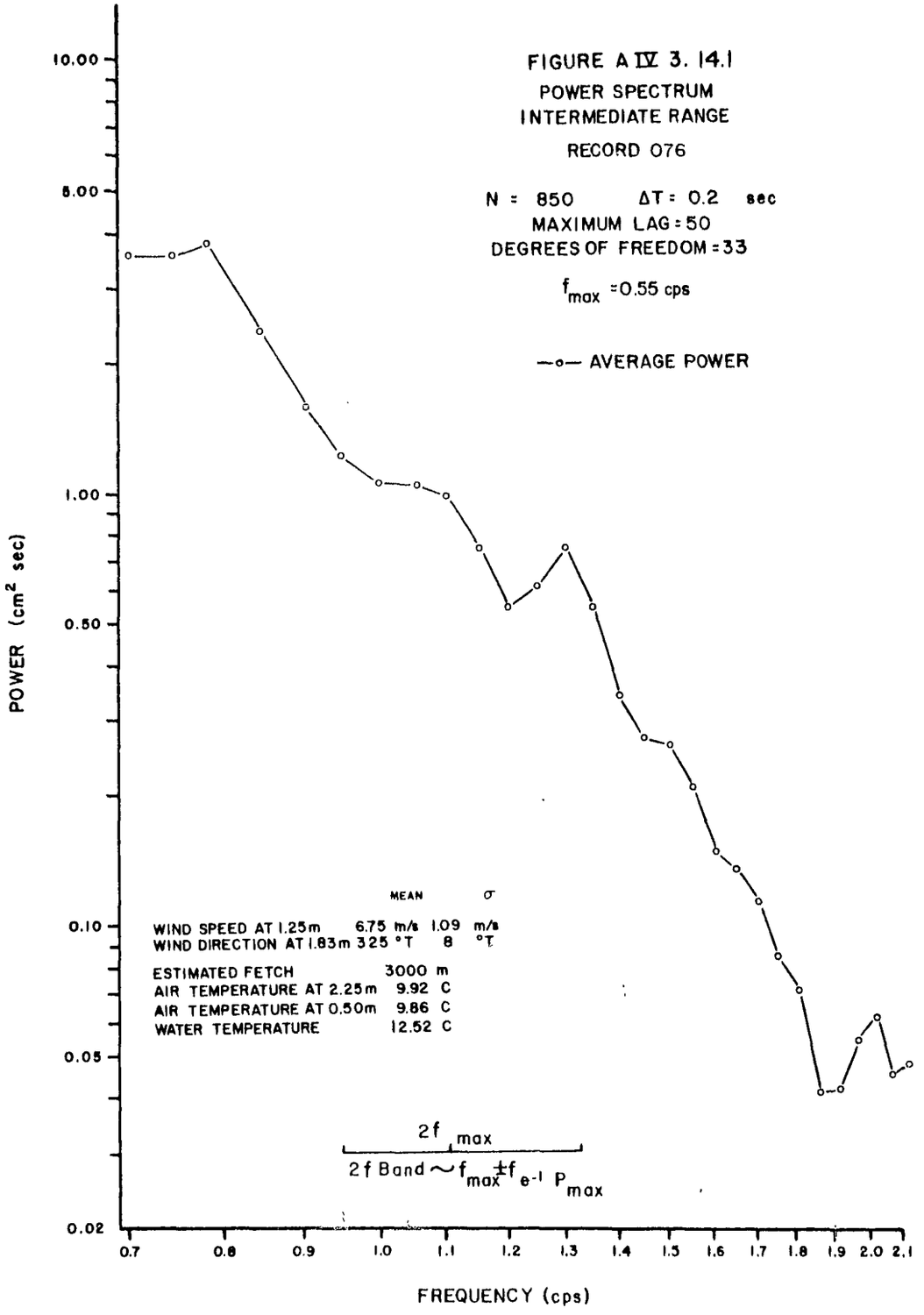


FIGURE A IV 3. 14.1
POWER SPECTRUM
INTERMEDIATE RANGE
RECORD 076
N = 850 ΔT = 0.2 sec
MAXIMUM LAG = 50
DEGREES OF FREEDOM = 33
f_{max} = 0.55 cps
—o— AVERAGE POWER
MEAN σ
WIND SPEED AT 1.25m 6.75 m/s 1.09 m/s
WIND DIRECTION AT 1.83m 325 °T 8 °T
ESTIMATED FETCH 3000 m
AIR TEMPERATURE AT 2.25m 9.92 C
AIR TEMPERATURE AT 0.50m 9.86 C
WATER TEMPERATURE 12.52 C
2f max
2f Band ~ $f_{max} \pm f_{e^{-1}}$ P_{max}
POWER (cm² sec)
10.00
5.00
1.00
0.50
0.10
0.05
0.02
0.7 0.8 0.9 1.0 1.1 1.2 1.3 1.4 1.5 1.6 1.7 1.8 1.9 2.0 2.1
FREQUENCY (cps)

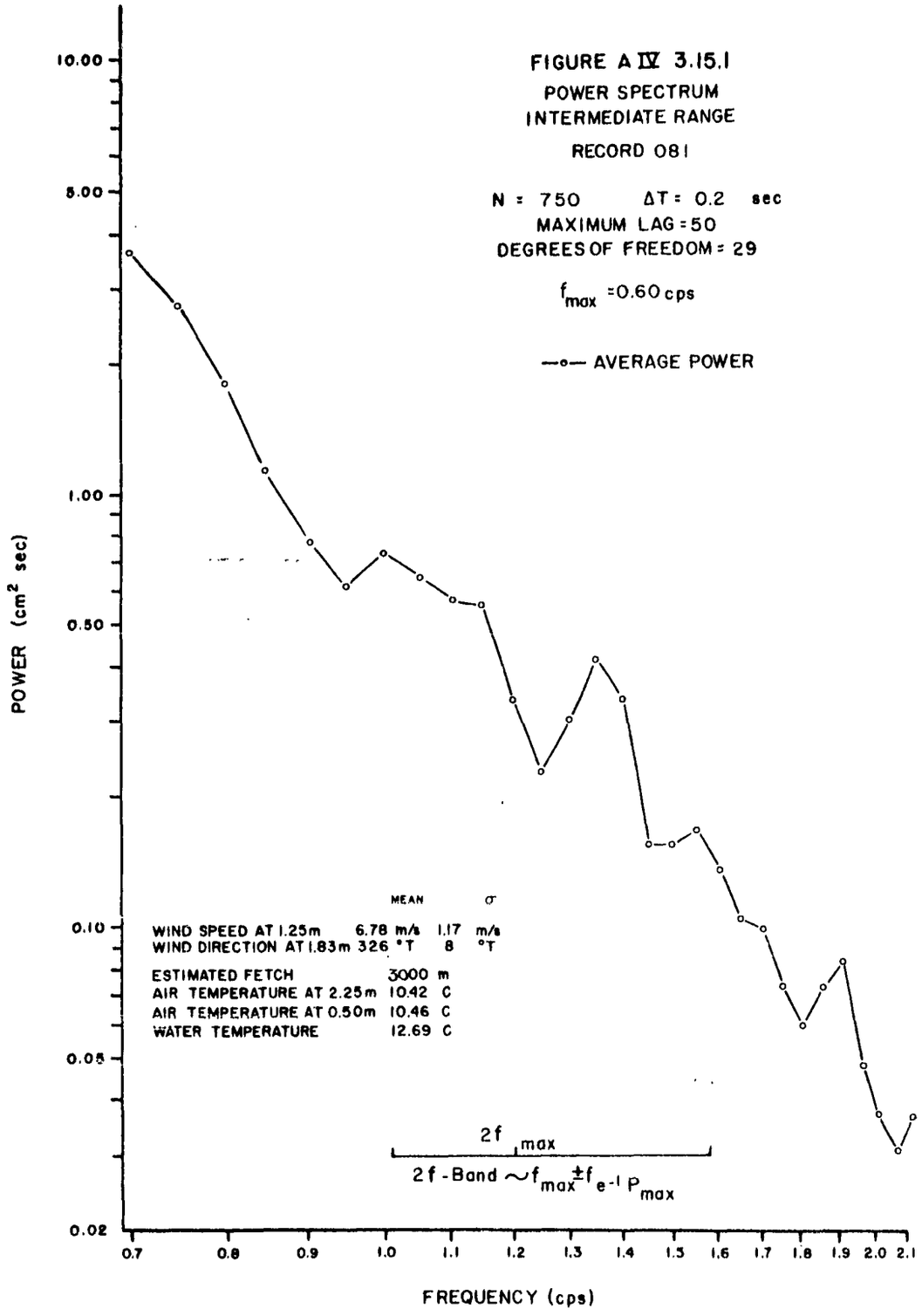


FIGURE A IV 3.15.1
POWER SPECTRUM
INTERMEDIATE RANGE
RECORD 081
N = 750 ΔT = 0.2 sec
MAXIMUM LAG = 50
DEGREES OF FREEDOM = 29
f_{max} = 0.60 cps
—o— AVERAGE POWER
POWER (cm² sec)
10.00
5.00
1.00
0.50
0.10
0.05
0.02
MEAN σ
WIND SPEED AT 1.25m 6.78 m/s 1.17 m/s
WIND DIRECTION AT 1.83m 326 °T 8 °T
ESTIMATED FETCH 3000 m
AIR TEMPERATURE AT 2.25m 10.42 C
AIR TEMPERATURE AT 0.50m 10.46 C
WATER TEMPERATURE 12.69 C
2f max
2f-Band ~ $f_{max} \pm f_{e-1} P_{max}$
0.7 0.8 0.9 1.0 1.1 1.2 1.3 1.4 1.5 1.6 1.7 1.8 1.9 2.0 2.1
FREQUENCY (cps)

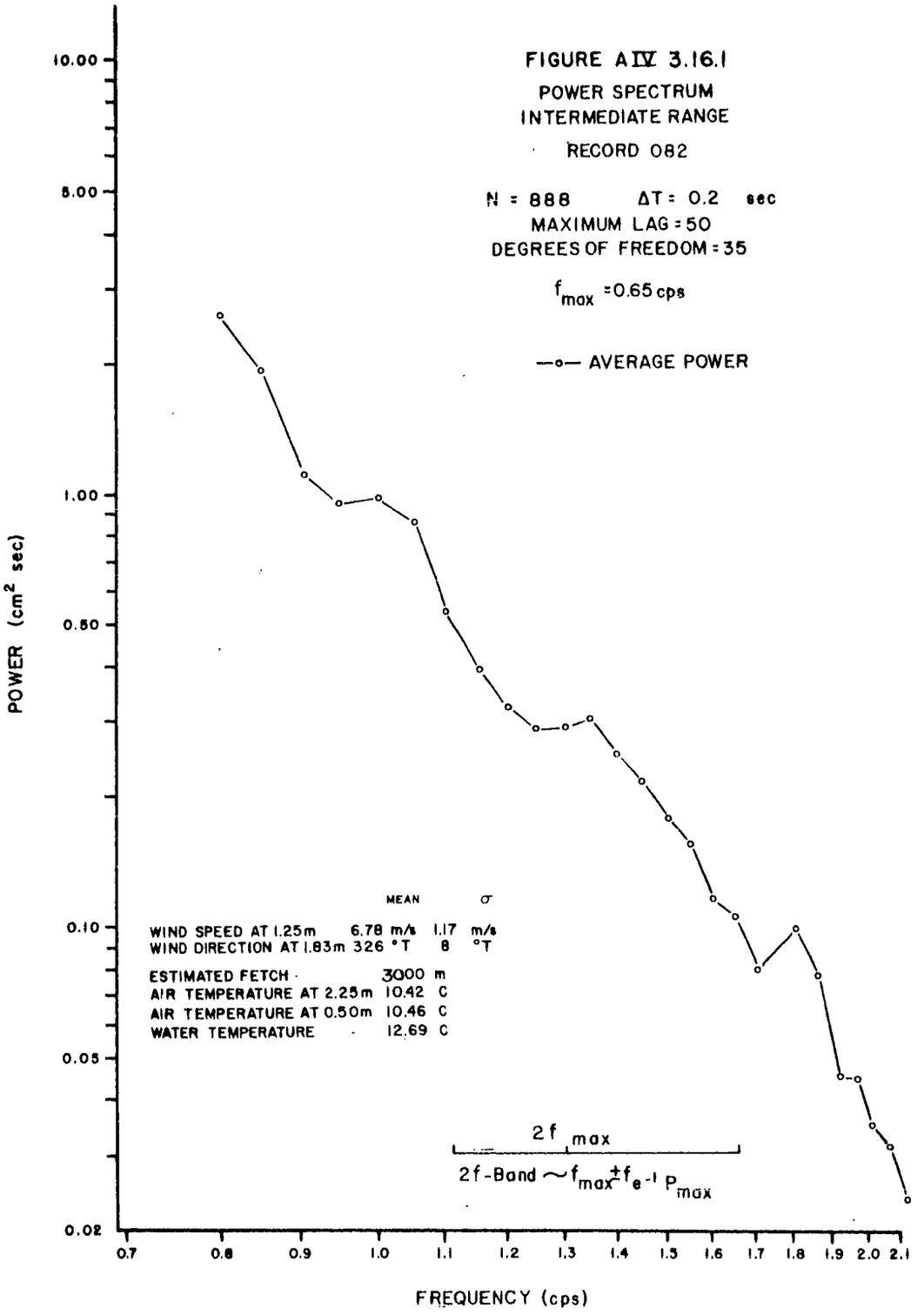


FIGURE AIV 3.16.1
POWER SPECTRUM
INTERMEDIATE RANGE
RECORD 082
N = 888 ΔT = 0.2 sec
MAXIMUM LAG = 50
DEGREES OF FREEDOM = 35
f_{max} = 0.65 cps
—o— AVERAGE POWER
MEAN σ
WIND SPEED AT 1.25m 6.78 m/s 1.17 m/s
WIND DIRECTION AT 1.83m 326 °T 8 °T
ESTIMATED FETCH 3000 m
AIR TEMPERATURE AT 2.25m 10.42 C
AIR TEMPERATURE AT 0.50m 10.46 C
WATER TEMPERATURE 12.69 C
2f max
2f-Band ~ $f_{max} \pm f_{e-1} P_{max}$
POWER (cm² sec)
10.00
5.00
1.00
0.50
0.10
0.05
0.02
0.7 0.8 0.9 1.0 1.1 1.2 1.3 1.4 1.5 1.6 1.7 1.8 1.9 2.0 2.1
FREQUENCY (cps)

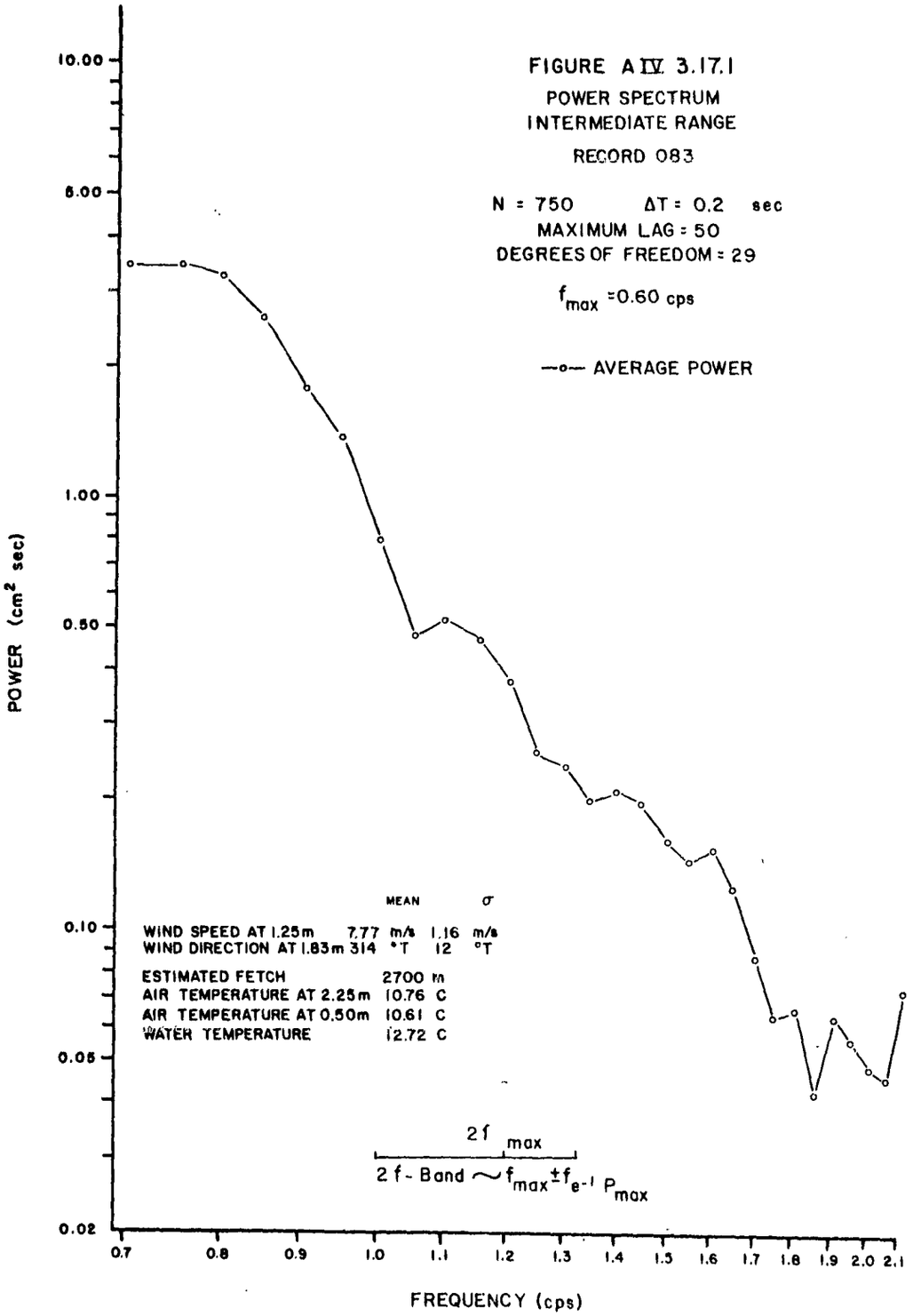


FIGURE A IV 3.17.1
POWER SPECTRUM
INTERMEDIATE RANGE
RECORD 083

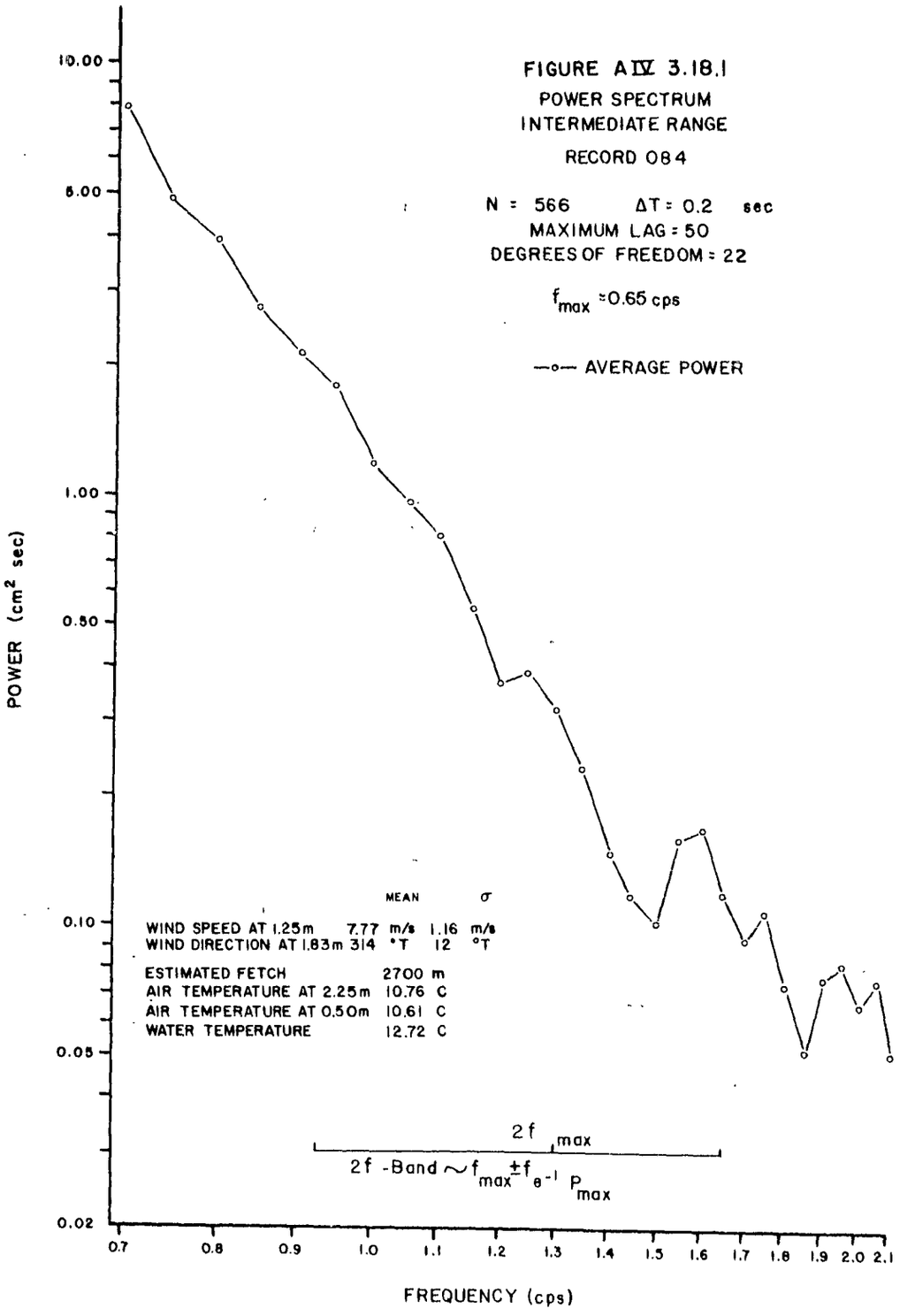


FIGURE AIV 3.18.1
POWER SPECTRUM
INTERMEDIATE RANGE
RECORD 084
N = 566 ΔT = 0.2 sec
MAXIMUM LAG = 50
DEGREES OF FREEDOM = 22
f_{max} = 0.65 cps
—o— AVERAGE POWER
MEAN σ
WIND SPEED AT 1.25m 7.77 m/s 1.16 m/s
WIND DIRECTION AT 1.83m 314 °T 12 °T
ESTIMATED FETCH 2700 m
AIR TEMPERATURE AT 2.25m 10.76 C
AIR TEMPERATURE AT 0.50m 10.61 C
WATER TEMPERATURE 12.72 C
2f max
2f -Band ~ $f_{max} \pm f_{\theta-1}$ P_{max}
POWER (cm² sec)
10.00
5.00
1.00
0.50
0.10
0.05
0.02
0.7 0.8 0.9 1.0 1.1 1.2 1.3 1.4 1.5 1.6 1.7 1.8 1.9 2.0 2.1
FREQUENCY (cps)

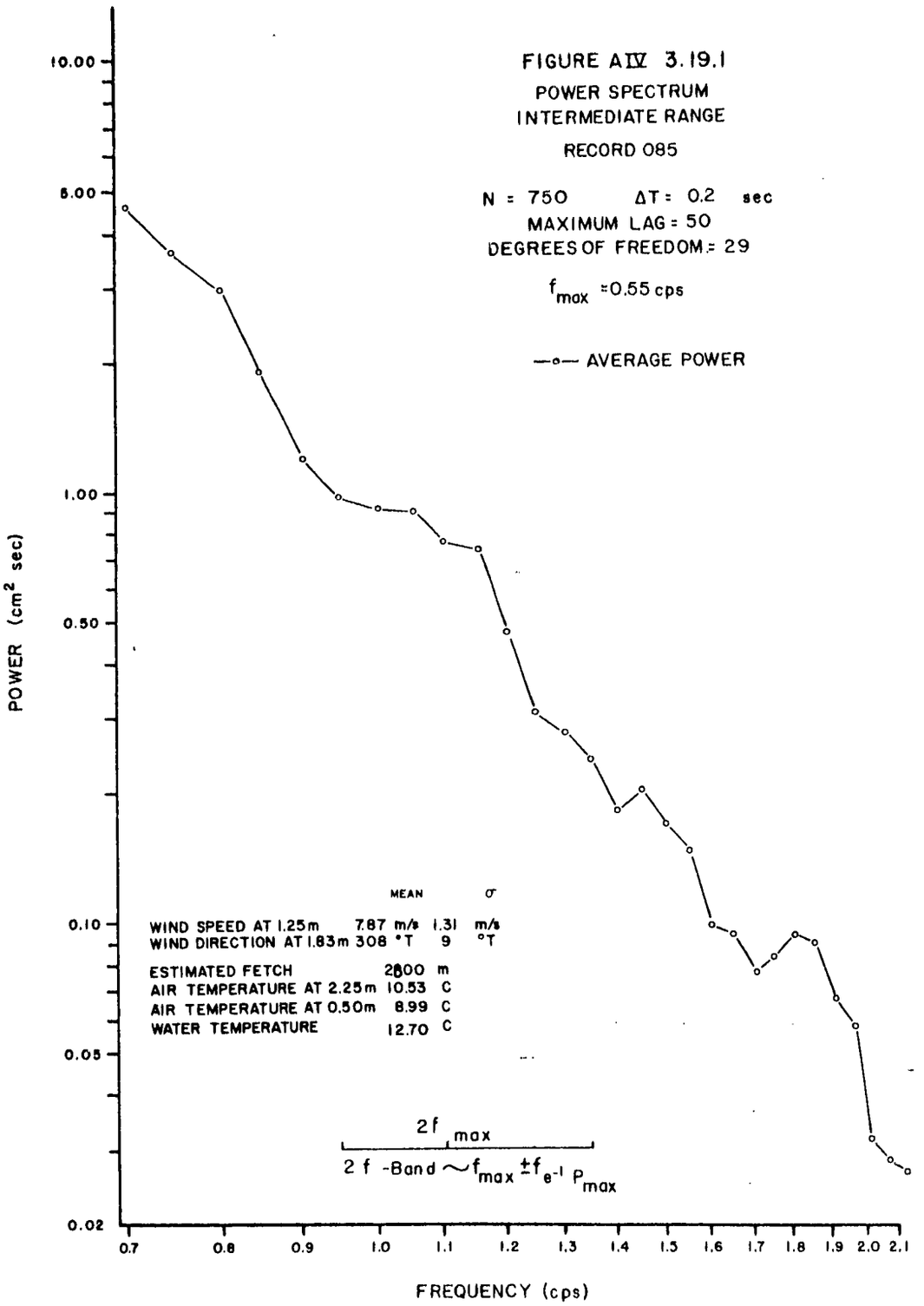


FIGURE AIV 3.19.1
POWER SPECTRUM
INTERMEDIATE RANGE
RECORD 085
N = 750 ΔT = 0.2 sec
MAXIMUM LAG = 50
DEGREES OF FREEDOM = 29
f_{max} = 0.55 cps
—o— AVERAGE POWER
POWER (cm² sec)
10.00
5.00
1.00
0.50
0.10
0.05
0.02
MEAN σ
WIND SPEED AT 1.25m 7.87 m/s 1.31 m/s
WIND DIRECTION AT 1.83m 308 °T 9 °T
ESTIMATED FETCH 2800 m
AIR TEMPERATURE AT 2.25m 10.53 C
AIR TEMPERATURE AT 0.50m 8.99 C
WATER TEMPERATURE 12.70 C
2f max
2 f -Band ~ $f_{max} \pm f_{e^{-1}} P_{max}$
0.7 0.8 0.9 1.0 1.1 1.2 1.3 1.4 1.5 1.6 1.7 1.8 1.9 2.0 2.1
FREQUENCY (cps)

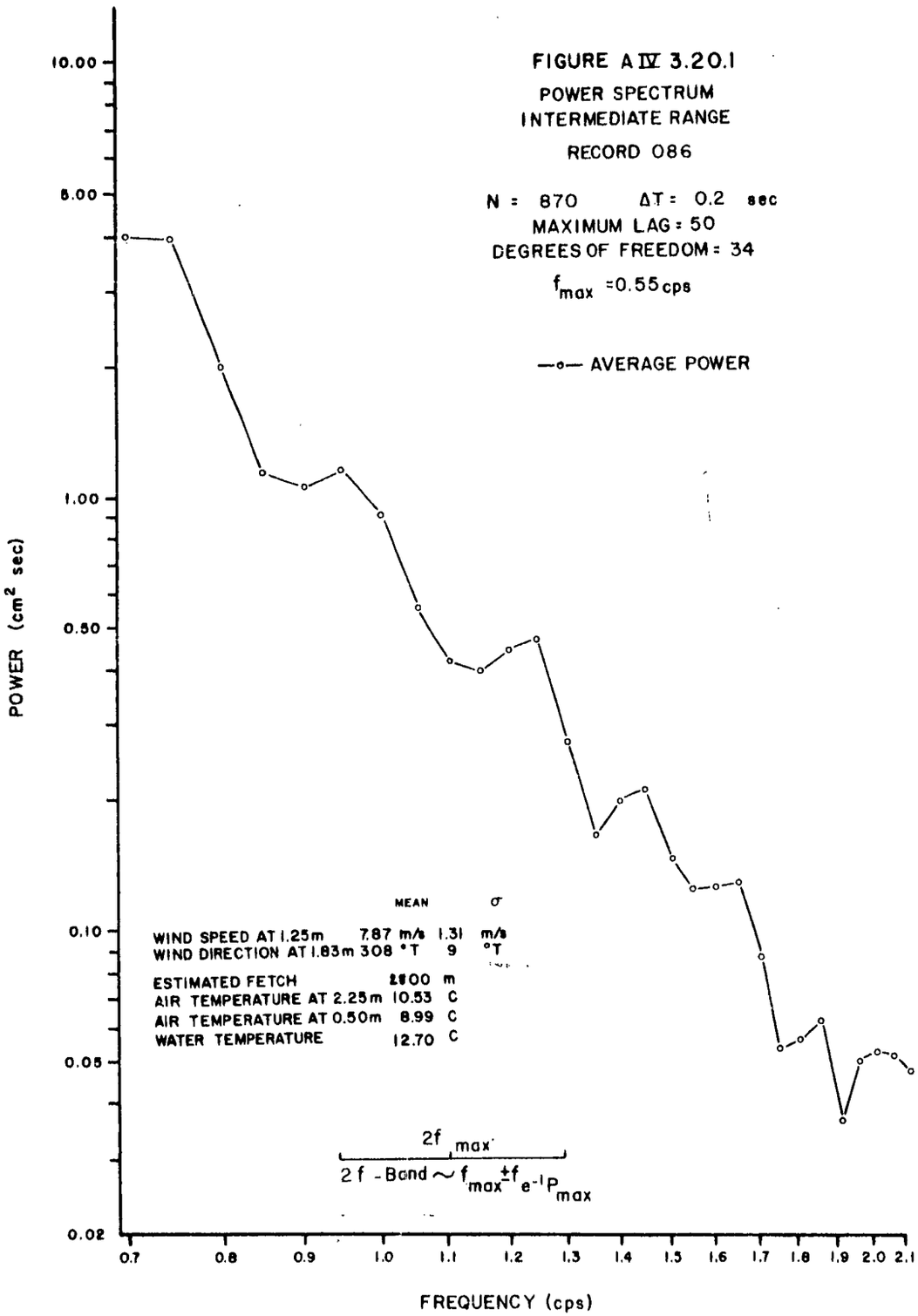


FIGURE A IV 3.20.1
POWER SPECTRUM
INTERMEDIATE RANGE
RECORD 086
N = 870 ΔT = 0.2 sec
MAXIMUM LAG = 50
DEGREES OF FREEDOM = 34
f_{max} = 0.55 cps
—o— AVERAGE POWER
MEAN σ
WIND SPEED AT 1.25m 7.87 m/s 1.31 m/s
WIND DIRECTION AT 1.83m 308 °T 9 °T
ESTIMATED FETCH 2800 m
AIR TEMPERATURE AT 2.25m 10.53 C
AIR TEMPERATURE AT 0.50m 8.99 C
WATER TEMPERATURE 12.70 C
2f max
2 f - Band ~ $f_{max} \pm f e^{-1} P_{max}$
POWER (cm² sec)
10.00
5.00
1.00
0.50
0.10
0.05
0.02
0.7
0.8
0.9
1.0
1.1
1.2
1.3
1.4
1.5
1.6
1.7
1.8
1.9
2.0
2.1
FREQUENCY (cps)

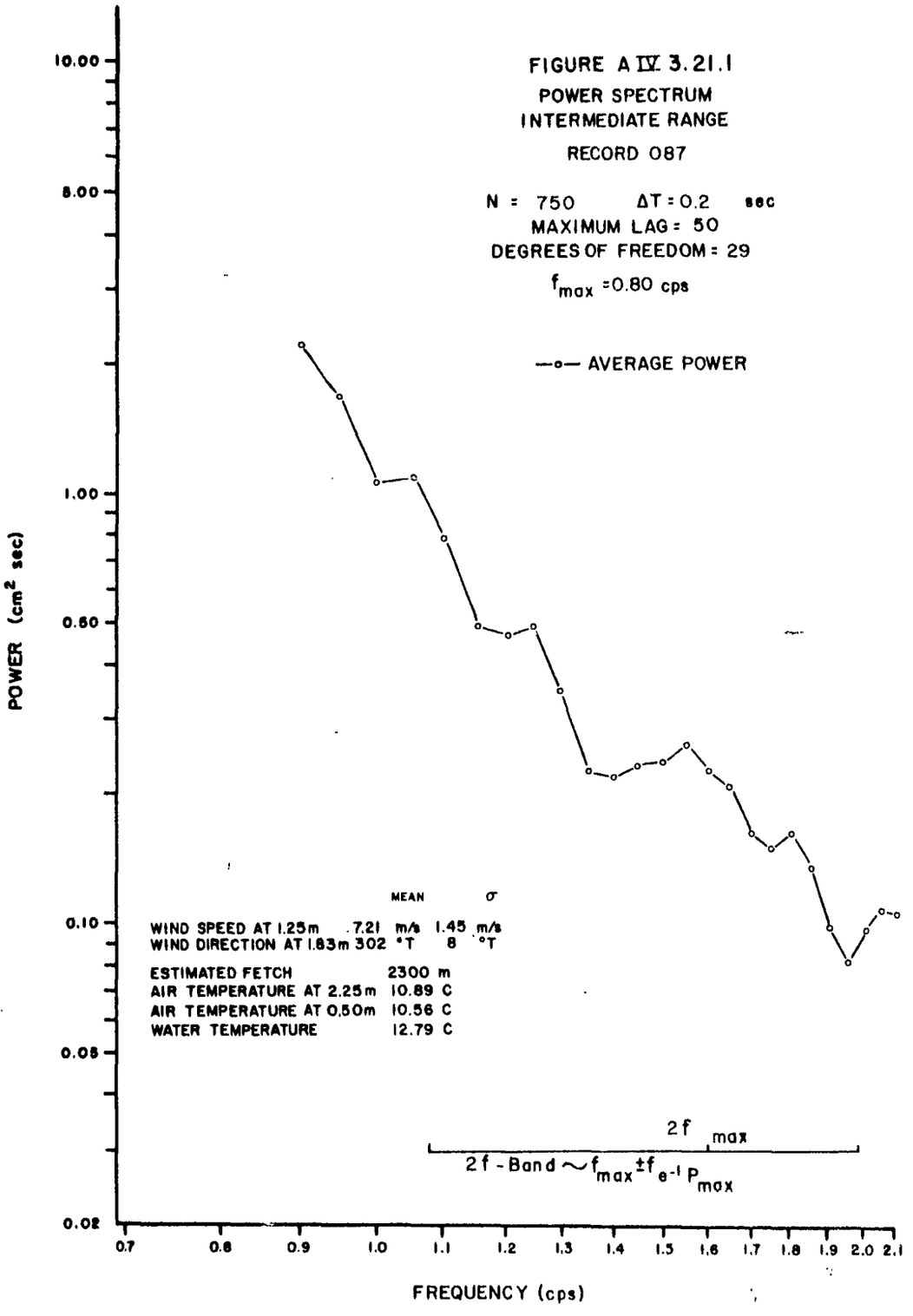


FIGURE A IV 3.21.1
POWER SPECTRUM
INTERMEDIATE RANGE
RECORD 087
N = 750 ΔT = 0.2 sec
MAXIMUM LAG = 50
DEGREES OF FREEDOM = 29
f_{max} = 0.80 cps
—o— AVERAGE POWER
POWER (cm² sec)
10.00
5.00
1.00
0.50
0.10
0.05
0.02
0.7
0.8
0.9
1.0
1.1
1.2
1.3
1.4
1.5
1.6
1.7
1.8
1.9
2.0
2.1
FREQUENCY (cps)
MEAN σ
WIND SPEED AT 1.25m 7.21 m/s 1.45 m/s
WIND DIRECTION AT 1.83m 302 °T 8 °T
ESTIMATED FETCH 2300 m
AIR TEMPERATURE AT 2.25m 10.89 C
AIR TEMPERATURE AT 0.50m 10.56 C
WATER TEMPERATURE 12.79 C
2f max
2f - Band ~ $f_{max} \pm f_{e^{-1}} P_{max}$

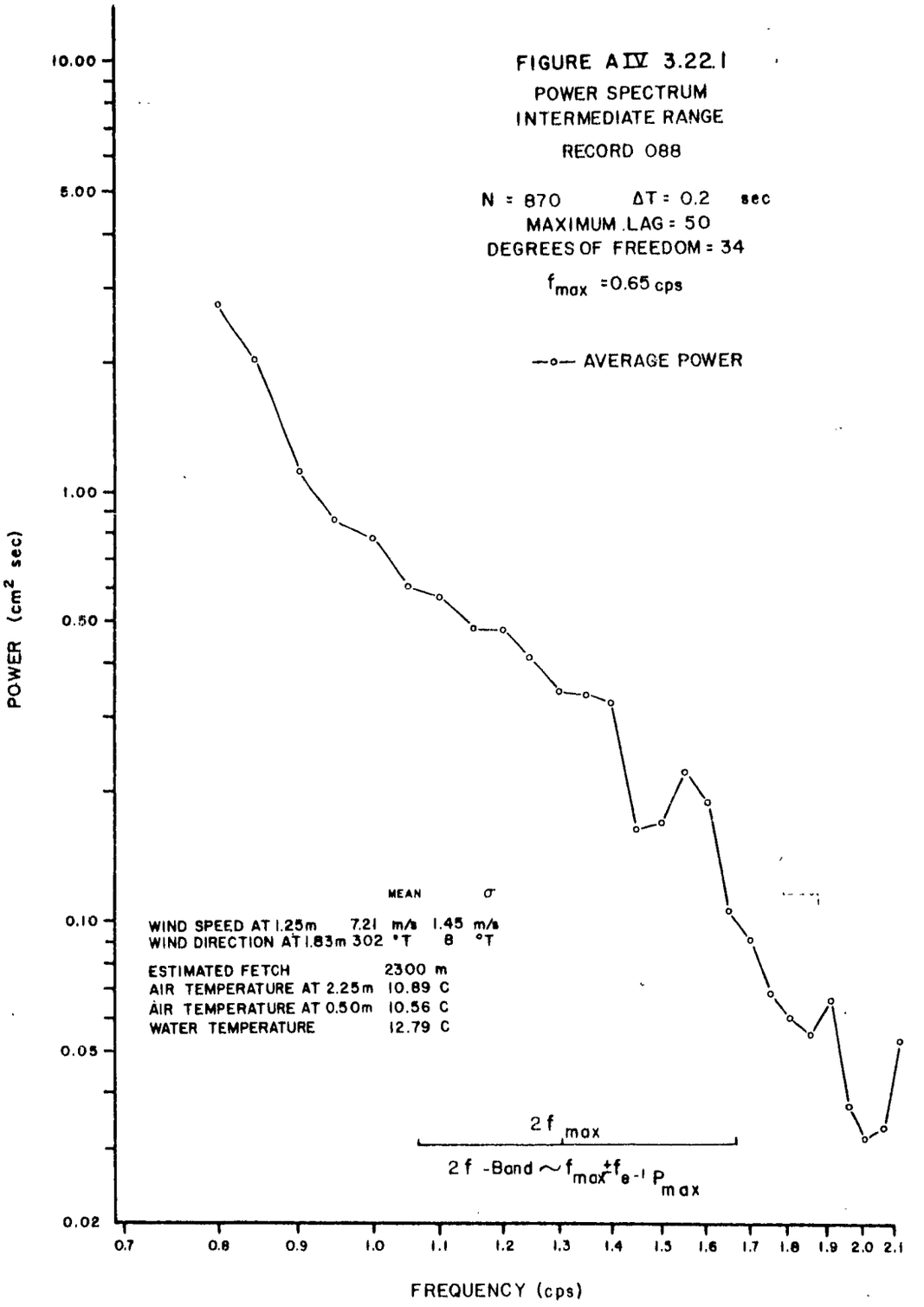


FIGURE AIV 3.22.1
POWER SPECTRUM
INTERMEDIATE RANGE
RECORD 088
N = 870 ΔT = 0.2 sec
MAXIMUM LAG = 50
DEGREES OF FREEDOM = 34
f_{max} = 0.65 cps
—o— AVERAGE POWER
MEAN σ
WIND SPEED AT 1.25m 7.21 m/s 1.45 m/s
WIND DIRECTION AT 1.83m 302 °T 8 °T
ESTIMATED FETCH 2300 m
AIR TEMPERATURE AT 2.25m 10.89 C
AIR TEMPERATURE AT 0.50m 10.56 C
WATER TEMPERATURE 12.79 C
$2f_{max}$
2f -Band ~ $f_{max} \pm f_{e-1}$ P_{max}
POWER (cm² sec)
10.00
5.00
1.00
0.50
0.10
0.05
0.02
0.7 0.8 0.9 1.0 1.1 1.2 1.3 1.4 1.5 1.6 1.7 1.8 1.9 2.0 2.1
FREQUENCY (cps)

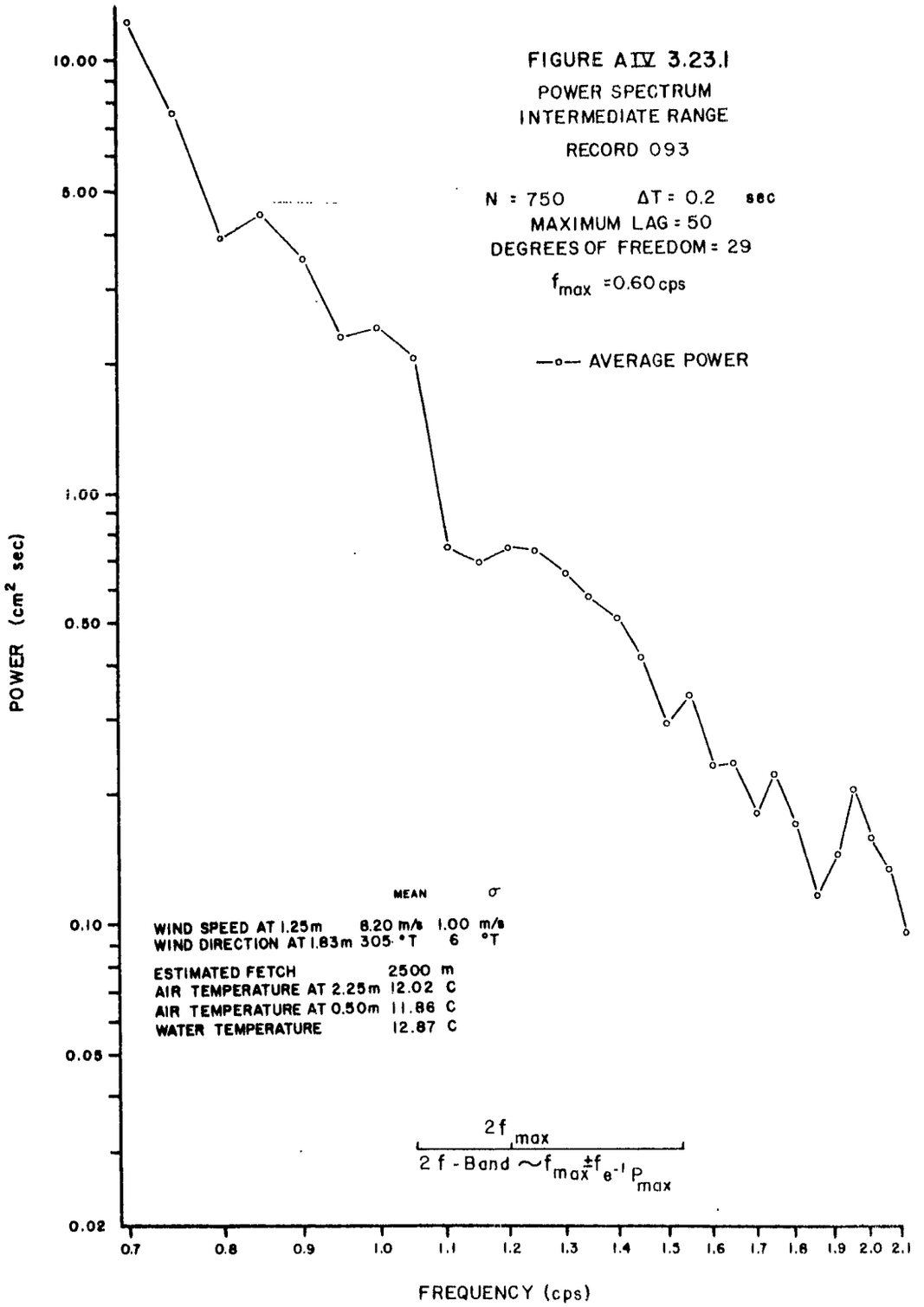


FIGURE AIV 3.23.1
POWER SPECTRUM
INTERMEDIATE RANGE
RECORD 093
N = 750 ΔT = 0.2 sec
MAXIMUM LAG = 50
DEGREES OF FREEDOM = 29
f_{max} = 0.60 cps
—o— AVERAGE POWER
POWER (cm² sec)
10.00
5.00
1.00
0.50
0.10
0.05
0.02
MEAN σ
WIND SPEED AT 1.25m 8.20 m/s 1.00 m/s
WIND DIRECTION AT 1.83m 305 °T 6 °T
ESTIMATED FETCH 2500 m
AIR TEMPERATURE AT 2.25m 12.02 C
AIR TEMPERATURE AT 0.50m 11.86 C
WATER TEMPERATURE 12.87 C
2f max
2 f - Band ~ $f_{max} \pm f_{e^{-1}} P_{max}$
0.7 0.8 0.9 1.0 1.1 1.2 1.3 1.4 1.5 1.6 1.7 1.8 1.9 2.0 2.1
FREQUENCY (cps)

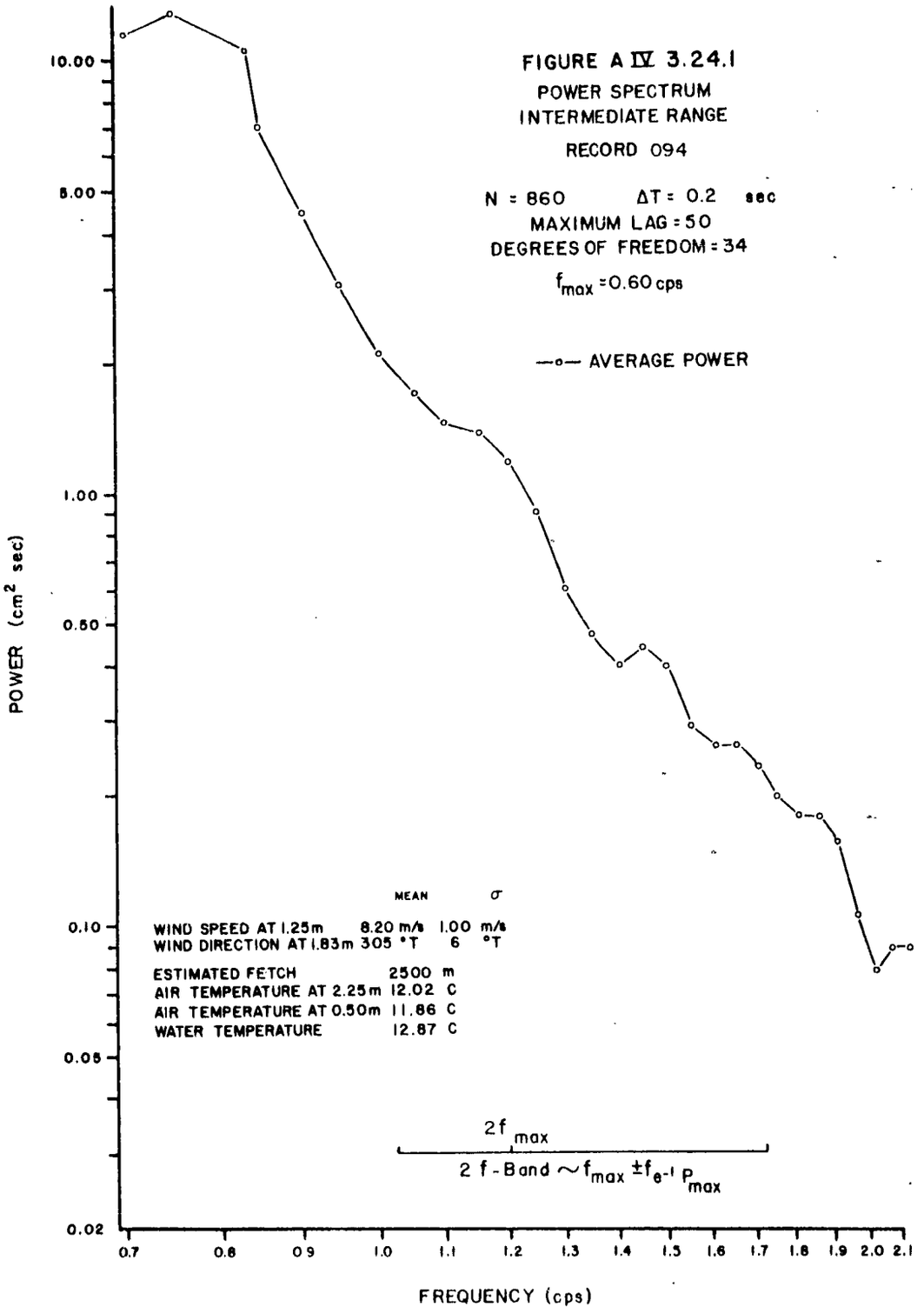


FIGURE A IV 3.24.1
POWER SPECTRUM
INTERMEDIATE RANGE
RECORD 094
N = 860 ΔT = 0.2 sec
MAXIMUM LAG = 50
DEGREES OF FREEDOM = 34
f_{max} = 0.60 cps
—o— AVERAGE POWER
MEAN σ
WIND SPEED AT 1.25m 8.20 m/s 1.00 m/s
WIND DIRECTION AT 1.83m 305 °T 6 °T
ESTIMATED FETCH 2500 m
AIR TEMPERATURE AT 2.25m 12.02 C
AIR TEMPERATURE AT 0.50m 11.86 C
WATER TEMPERATURE 12.87 C
$2f_{max}$
2 f-Band ~ $f_{max} \pm f_{e-1} P_{max}$
POWER (cm² sec)
10.00
5.00
1.00
0.50
0.10
0.05
0.02
0.7 0.8 0.9 1.0 1.1 1.2 1.3 1.4 1.5 1.6 1.7 1.8 1.9 2.0 2.1
FREQUENCY (cps)

High-Resolution Spectra of the Water Surface--Tables of Values from 0.0 to 2.5 cps

Tables AIV 3.09 to AIV 3.24 on pages AIV-130 to AIV-161 list the values of the average power at each 0.5 cps from 0.0 to 2.5 cps. They also show the 10%, 50%, and 90% confidence limits. There are no high-resolution analyses for the July records; consequently, there are no tables numbered AIV 3.01 to AIV 3.08.

TABLE A IV 3.09

POWER SPECTRUM

RECORD 067

N = 750 ΔT = 0.2 sec Maximum Lag = 50 Degrees of Freedom = 29

Wind Speed at 1.25m : mean 6.18 m/s σ 1.09 m/s

Wind Direction at 1.83m : mean 307 °T σ 7 °T

Estimated Fetch 2700 m

Air Temperature at 2.25m 9.25 C

Air Temperature at 0.50m 9.88 C

Water Temperature 12.46 C

Frequency (cps)	Power (cm^2 sec)	10% Confidence Limit (cm^2 sec)	90% Confidence Limit (cm^2 sec)	50% Confidence Limit (cm^2 sec)
0.00	.910, 0	.675, 0	.133, 1	.890, 0
0.05	.104, 1	.775, 0	.153, 1	.102, 1
0.10	.550, 0	.408, 0	.806, 0	.538, 0
0.15	.128, 0	.950, -1	.188, 0	.125, 0
0.20	.191, -1	.142, -1	.279, -1	.187, -1
0.25	.459, -1	.340, -1	.672, -1	.449, -1
0.30	.189, -2	.140, -2	.277, -2	.185, -2
0.35	.387, -1	.287, -1	.566, -1	.378, -1
0.40	.275, -2	.204, -2	.403, -2	.269, -2
0.45	.120, 0	.889, -1	.176, 0	.117, 0
0.50	.469, 0	.348, 0	.686, 0	.458, 0
0.55	.172, 1	.128, 1	.252, 1	.169, 1
0.60	.525, 1	.389, 1	.768, 1	.513, 1
0.65	.947, 1	.702, 1	.139, 2	.926, 1
0.70	.751, 1	.557, 1	.110, 2	.735, 1
0.75	.453, 1	.336, 1	.664, 1	.443, 1
0.80	.412, 1	.306, 1	.603, 1	.403, 1
0.85	.278, 1	.206, 1	.408, 1	.272, 1
0.90	.218, 1	.162, 1	.319, 1	.213, 1
0.95	.190, 1	.141, 1	.279, 1	.186, 1
1.00	.131, 1	.973, 0	.192, 1	.128, 1
1.05	.105, 1	.782, 0	.154, 1	.103, 1
1.10	.839, 0	.622, 0	.123, 1	.820, 0
1.15	.483, 0	.358, 0	.707, 0	.472, 0
1.20	.445, 0	.330, 0	.651, 0	.435, 0

TABLE A IV 3.09

(continued)

Frequency (cps)	Power (cm^2 sec)	10% Confidence Limit (cm^2 sec)	90% Confidence Limit (cm^2 sec)	50% Confidence Limit (cm^2 sec)
1.25	.331, 0	.245, 0	.484, 0	.324, 0
1.30	.381, 0	.283, 0	.558, 0	.373, 0
1.35	.407, 0	.302, 0	.597, 0	.398, 0
1.40	.344, 0	.255, 0	.504, 0	.337, 0
1.45	.264, 0	.196, 0	.387, 0	.259, 0
1.50	.264, 0	.196, 0	.387, 0	.259, 0
1.55	.169, 0	.126, 0	.248, 0	.166, 0
1.60	.153, 0	.114, 0	.224, 0	.150, 0
1.65	.157, 0	.116, 0	.230, 0	.153, 0
1.70	.145, 0	.107, 0	.212, 0	.141, 0
1.75	.988, -1	.733, -1	.145, 0	.966, -1
1.80	.669, -1	.496, -1	.979, -1	.654, -1
1.85	.448, -1	.332, -1	.655, -1	.438, -1
1.90	.535, -1	.397, -1	.783, -1	.523, -1
1.95	.277, -1	.206, -1	.406, -1	.271, -1
2.00	.326, -1	.242, -1	.478, -1	.319, -1
2.05	.236, -1	.175, -1	.346, -1	.231, -1
2.10	.367, -1	.272, -1	.537, -1	.359, -1
2.15	.308, -1	.229, -1	.451, -1	.301, -1
2.20	.390, -1	.289, -1	.571, -1	.381, -1
2.25	.304, -1	.226, -1	.445, -1	.297, -1
2.30	.468, -1	.347, -1	.685, -1	.458, -1
2.35	.440, -1	.326, -1	.644, -1	.430, -1
2.40	.459, -1	.341, -1	.673, -1	.449, -1
2.45	.186, -1	.138, -1	.273, -1	.182, -1
2.50	.908, -2	.674, -2	.133, -1	.888, -2

TABLE A IV 3.10

POWER SPECTRUM

RECORD 068

N = 850 ΔT = 0.2 sec Maximum Lag = 50 Degrees of Freedom = 33

Wind Speed at 1.25m : mean 6.18 m/s σ 1.09 m/s

Wind Direction at 1.83m : mean 307 °T σ 7 °T

Estimated Fetch 2700 m.

Air Temperature at 2.25m 9.25 C

Air Temperature at 0.50m 9.88 C

Water Temperature 12.46 C

Frequency (cps)	Power (cm^2 sec)	10% Confidence Limit (cm^2 sec)	90% Confidence Limit (cm^2 sec)	50% Confidence Limit (cm^2 sec)
0.00	.890, 0	.670, 0	.127, 1	.873, 0
0.05	.993, 0	.748, 0	.141, 1	.973, 0
0.10	.561, 0	.422, 0	.799, 0	.550, 0
0.15	.157, 0	.119, 0	.224, 0	.154, 0
0.20	.895, -1	.674, -1	.128, 0	.877, -1
0.25	.109, 0	.821, -1	.155, 0	.107, 0
0.30	.103, 0	.779, -1	.147, 0	.101, 0
0.35	.885, -1	.666, -1	.126, 0	.867, -1
0.40	.813, -1	.612, -1	.116, 0	.797, -1
0.45	.129, 0	.969, -1	.183, 0	.126, 0
0.50	.566, 0	.426, 0	.806, 0	.555, 0
0.55	.357, 1	.268, 1	.508, 1	.349, 1
0.60	.818, 1	.616, 1	.117, 2	.802, 1
0.65	.849, 1	.639, 1	.121, 2	.832, 1
0.70	.607, 1	.457, 1	.865, 1	.595, 1
0.75	.535, 1	.403, 1	.762, 1	.524, 1
0.80	.471, 1	.354, 1	.671, 1	.461, 1
0.85	.443, 1	.334, 1	.631, 1	.434, 1
0.90	.301, 1	.227, 1	.429, 1	.295, 1
0.95	.165, 1	.124, 1	.235, 1	.162, 1
1.00	.121, 1	.914, 0	.173, 1	.119, 1
1.05	.828, 0	.624, 0	.118, 1	.812, 0
1.10	.465, 0	.350, 0	.662, 0	.455, 0
1.15	.514, 0	.387, 0	.733, 0	.504, 0
1.20	.561, 0	.422, 0	.799, 0	.550, 0

TABLE A IV 3.10

(continued)

Frequency (cps)	Power (cm^2 sec)	10% Confidence Limit (cm^2 sec)	90% Confidence Limit (cm^2 sec)	50% Confidence Limit (cm^2 sec)
1.25	.392, 0	.295, 0	.558, 0	.384, 0
1.30	.269, 0	.202, 0	.383, 0	.263, 0
1.35	.201, 0	.151, 0	.287, 0	.197, 0
1.40	.146, 0	.110, 0	.207, 0	.143, 0
1.45	.164, 0	.123, 0	.233, 0	.160, 0
1.50	.247, 0	.186, 0	.352, 0	.242, 0
1.55	.255, 0	.192, 0	.363, 0	.250, 0
1.60	.182, 0	.137, 0	.259, 0	.178, 0
1.65	.116, 0	.876, -1	.166, 0	.114, 0
1.70	.130, 0	.980, -1	.185, 0	.128, 0
1.75	.163, 0	.123, 0	.232, 0	.160, 0
1.80	.135, 0	.101, 0	.192, 0	.132, 0
1.85	.102, 0	.767, -1	.145, 0	.998, -1
1.90	.767, -1	.577, -1	.109, 0	.751, -1
1.95	.540, -1	.407, -1	.770, -1	.529, -1
2.00	.477, -1	.360, -1	.680, -1	.468, -1
2.05	.509, -1	.384, -1	.726, -1	.499, -1
2.10	.592, -1	.446, -1	.843, -1	.580, -1
2.15	.581, -1	.438, -1	.828, -1	.570, -1
2.20	.458, -1	.345, -1	.653, -1	.449, -1
2.25	.370, -1	.279, -1	.528, -1	.363, -1
2.30	.469, -1	.353, -1	.668, -1	.460, -1
2.35	.597, -1	.449, -1	.850, -1	.585, -1
2.40	.576, -1	.434, -1	.821, -1	.565, -1
2.45	.466, -1	.351, -1	.664, -1	.457, -1
2.50	.390, -1	.294, -1	.556, -1	.383, -1

TABLE A IV 3.11

POWER SPECTRUM

RECORD 069

N = 750 ΔT = 0.2 sec Maximum Lag = 50 Degrees of Freedom = 29

Wind Speed at 1.25m: mean 5.61 m/s σ 0.98 m/s

Wind Direction at 1.83m: mean 312 °T σ 9 °T

Estimated Fetch 3000 m

Air Temperature at 2.25m 9.78 C

Air Temperature at 0.50m 9.52 C

Water Temperature 12.45 C

Frequency (cps)	Power (cm^2 sec)	10% Confidence Limit (cm^2 sec)	90% Confidence Limit (cm^2 sec)	50% Confidence Limit (cm^2 sec)
0.00	.106, 1	.783, 0	.154, 1	.103, 1
0.05	.900, 0	.668, 0	.132, 1	.881, 0
0.10	.362, 0	.269, 0	.530, 0	.354, 0
0.15	.112, 0	.832, -1	.164, 0	.110, 0
0.20	.241, -1	.179, -1	.353, -1	.235, -1
0.25	.540, -1	.401, -1	.791, -1	.528, -1
0.30	.653, -2	.485, -2	.957, -2	.639, -2
0.35	.772, -1	.572, -1	.113, 0	.755, -1
0.40	.281, 0	.209, 0	.412, 0	.275, 0
0.45	.255, 1	.189, 1	.374, 1	.250, 1
0.50	.880, 1	.653, 1	.129, 2	.860, 1
0.55	.146, 2	.108, 2	.214, 2	.143, 2
0.60	.129, 2	.954, 1	.188, 2	.126, 2
0.65	.746, 1	.553, 1	.109, 2	.730, 1
0.70	.454, 1	.337, 1	.664, 1	.444, 1
0.75	.418, 1	.310, 1	.612, 1	.409, 1
0.80	.434, 1	.322, 1	.636, 1	.425, 1
0.85	.312, 1	.231, 1	.456, 1	.305, 1
0.90	.186, 1	.138, 1	.273, 1	.182, 1
0.95	.190, 1	.141, 1	.279, 1	.186, 1
1.00	.172, 1	.127, 1	.252, 1	.168, 1
1.05	.931, 0	.691, 0	.136, 1	.911, 0
1.10	.638, 0	.473, 0	.934, 0	.624, 0
1.15	.674, 0	.500, 0	.987, 0	.659, 0
1.20	.746, 0	.553, 0	.109, 1	.730, 0

TABLE A IV 3.11

(continued)

Frequency (cps)	Power (cm^2 sec)	10% Confidence Limit (cm^2 sec)	90% Confidence Limit (cm^2 sec)	50% Confidence Limit (cm^2 sec)
1.25	.664, 0	.492, 0	.972, 0	.649, 0
1.30	.456, 0	.339, 0	.668, 0	.446, 0
1.35	.222, 0	.165, 0	.325, 0	.217, 0
1.40	.174, 0	.129, 0	.255, 0	.170, 0
1.45	.141, 0	.105, 0	.207, 0	.138, 0
1.50	.238, 0	.176, 0	.348, 0	.232, 0
1.55	.208, 0	.155, 0	.305, 0	.204, 0
1.60	.135, 0	.100, -2	.197, 0	.132, 0
1.65	.103, 0	.767, -1	.151, 0	.101, 0
1.70	.132, 0	.981, -1	.194, 0	.129, 0
1.75	.135, 0	.100, 0	.198, 0	.132, 0
1.80	.130, 0	.962, -1	.190, 0	.127, 0
1.85	.648, -1	.481, -1	.949, -1	.634, -1
1.90	.617, -1	.458, -1	.904, -1	.604, -1
1.95	.497, -1	.369, -1	.728, -1	.487, -1
2.00	.530, -1	.393, -1	.776, -1	.518, -1
2.05	.342, -1	.254, -1	.501, -1	.335, -1
2.10	.452, -1	.335, -1	.661, -1	.442, -1
2.15	.327, -1	.243, -1	,479, -1	.320, -1
2.20	.406, -1	.302, -1	.595, -1	.397, -1
2.25	.297, -1	.220, -1	.435, -1	.290, -1
2.30	.400, -1	.297, -1	.586, -1	.391, -1
2.35	.316, -1	.235, -1	.463, -1	.309, -1
2.40	.412, -1	.305, -1	.603, -1	.403, -1
2.45	.211, -1	.157, -1	.310, -1	.207, -1
2.50	.170, -1	.126, -1	.248, -1	.166, -1

TABLE AIV 3.12

POWER SPECTRUM

RECORD 070

N = 880 ΔT = 0.2 sec Maximum Lag = 50 Degrees of Freedom = 35

Wind Speed at 1.25m — mean 5.61 m/s σ 0.98 m/s

Wind Direction at 1.83m mean 312 °T σ 9 °T

Estimated Fetch 3000 m

Air Temperature at 2.25m 9.78 C

Air Temperature at 0.50m 9.52 C

Water Temperature 12.45 C

Frequency (cps)	Power (cm^2 sec)	10% Confidence Limit (cm^2 sec)	90% Confidence Limit (cm^2 sec)	50% Confidence Limit (cm^2 sec)
0.00	.101, 1	.763, 0	.142, 1	.987, 0
0.05	.767, 0	.581, 0	.108, 1	.751, 0
0.10	.412, 0	.312, 0	.580, 0	.403, 0
0.15	.581, -1	.440, -1	.819, -1	.570, -1
0.20	.972, -1	.737, -1	.137, 0	.953, -1
0.25	-.597, -2	-.452, -2	-.841, -2	-.585, -2
0.30	.880, -1	.666, -1	.124, 0	.862, -1
0.35	.334, -1	.253, -1	.470, -1	.327, -1
0.40	.300, 0	.227, 0	.422, 0	.294, 0
0.45	.215, 1	.163, 1	.302, 1	.210, 1
0.50	.839, 1	.635, 1	.118, 2	.822, 1
0.55	.116, 2	.881, 1	.164, 2	.114, 2
0.60	.105, 2	.799, 1	.149, 2	.103, 2
0.65	.900, 1	.682, 1	.127, 2	.882, 1
0.70	.648, 1	.491, 1	.913, 1	.635, 1
0.75	.462, 1	.350, 1	.651, 1	.453, 1
0.80	.330, 1	.250, 1	.464, 1	.323, 1
0.85	.237, 1	.180, 1	.334, 1	.232, 1
0.90	.154, 1	.117, 1	.217, 1	.151, 1
0.95	.160, 1	.121, 1	.225, 1	.157, 1
1.00	.170, 1	.129, 1	.240, 1	.167, 1
1.05	.127, 1	.963, 0	.179, 1	.125, 1
1.10	.633, 0	.479, 0	.891, 0	.620, 0
1.15	.664, 0	.503, 0	.935, 0	.650, 0
1.20	.514, 0	.375, 0	.742, 0	.524, 0

TABLE A IV 3.12

(continued)

Frequency (cps)	Power (cm^2 sec)	10% Confidence Limit (cm^2 sec)	90% Confidence Limit (cm^2 sec)	50% Confidence Limit (cm^2 sec)
1.25	.457, 0	.346, 0	.643, 0	.448, 0
1.30	.356, 0	.270, 0	.501, 0	.349, 0
1.35	.287, 0	.217, 0	.404, 0	.281, 0
1.40	.193, 0	.146, 0	.272, 0	.189, 0
1.45	.208, 0	.157, 0	.293, 0	.204, 0
1.50	.206, 0	.156, 0	.290, 0	.202, 0
1.55	.241, 0	.183, 0	.340, 0	.236, 0
1.60	.173, 0	.131, 0	.244, 0	.170, 0
1.65	.116, 0	.881, -1	.164, 0	.114, 0
1.70	.679, -1	.514, -1	.956, -1	.666, -1
1.75	.972, -1	.737, -1	.137, 0	.953, -1
1.80	.725, -1	.550, -1	.102, 0	.711, -1
1.85	.916, -1	.694, -1	.129, 0	.897, -1
1.90	.736, -1	.557, -1	.104, 0	.721, -1
1.95	.669, -1	.507, -1	.942, -1	.655, -1
2.00	.409, -1	.310, -1	.576, -1	.401, -1
2.05	.653, -1	.495, -1	.920, -1	.640, -1
2.10	.643, -1	.487, -1	.906, -1	.630, -1
2.15	.695, -1	.526, -1	.978, -1	.681, -1
2.20	.341, -1	.258, -1	.480, -1	.334, -1
2.25	.299, -1	.227, -1	.422, -1	.293, -1
2.30	.160, -1	.121, -1	.225, -1	.157, -1
2.35	.381, -1	.289, -1	.537, -1	.374, -1
2.40	.343, -1	.260, -1	.483, -1	.336, -1
2.45	.612, -1	.464, -1	.862, -1	.600, -1
2.50	.525, -1	.397, -1	.739, -1	.514, -1

TABLE A IV 3.13
POWER SPECTRUM
RECORD 075

N = 750 ΔT = 0.2 sec Maximum Lag = 50 Degrees of Freedom = 29

Wind Speed at 1.25m: mean 6.75 m/s σ 1.09 m/s
Wind Direction at 1.83m: mean 325 °T σ 8 °T

Estimated Fetch 3000 m
Air Temperature at 2.25m 9.92 C
Air Temperature at 0.50m 9.86 C
Water Temperature 12.52 C

Frequency (cps)	Power (cm^2 sec)	10% Confidence Limit (cm^2 sec)	90% Confidence Limit (cm^2 sec)	50% Confidence Limit (cm^2 sec)
0.00	.217, 1	.161, 1	.317, 1	.212, 1
0.05	.137, 1	.102, 1	.201, 1	.134, 1
0.10	.300, 0	.223, 0	.440, 0	.294, 0
0.15	.136, 0	.101, 0	.199, 0	.133, 0
0.20	.293, -2	.218, -2	.429, -2	.287, -2
0.25	.905, -1	.672, -1	.133, 0	.886, -1
0.30	.260, -2	.193, -2	.381, -2	.255, -2
0.35	.199, 0	.147, 0	.291, 0	.194, 0
0.40	.138, 1	.102, 1	.202, 1	.135, 1
0.45	.535, 1	.397, 1	.783, 1	.523, 1
0.50	.119, 2	.882, 1	.174, 2	.116, 2
0.55	.213, 2	.158, 2	.312, 2	.208, 2
0.60	.183, 2	.136, 2	.268, 2	.179, 2
0.65	.880, 1	.653, 1	.129, 2	.860, 1
0.70	.566, 1	.420, 1	.829, 1	.553, 1
0.75	.399, 1	.296, 1	.584, 1	.390, 1
0.80	.258, 1	.192, 1	.378, 1	.253, 1
0.85	.211, 1	.157, 1	.310, 1	.207, 1
0.90	.162, 1	.120, 1	.237, 1	.158, 1
0.95	.118, 1	.874, 0	.172, 1	.115, 1
1.00	.126, 1	.931, 0	.184, 1	.123, 1
1.05	.134, 1	.992, 0	.196, 1	.131, 1
1.10	.115, 1	.851, 0	.168, 1	.112, 1
1.15	.581, 0	.431, 0	.851, 0	.569, 0
1.20	.305, 0	.226, 0	.447, 0	.298, 0

TABLE AIV 3.13

(continued)

Frequency (cps)	Power (cm^2 sec)	10% Confidence Limit (cm^2 sec)	90% Confidence Limit (cm^2 sec)	50% Confidence Limit (cm^2 sec)
1.25	.272, 0	.202, 0	.398, 0	.266, 0
1.30	.338, 0	.251, 0	.495, 0	.331, 0
1.35	.286, 0	.212, 0	.418, 0	.279, 0
1.40	.263, 0	.195, 0	.386, 0	.258, 0
1.45	.196, 0	.145, 0	.287, 0	.192, 0
1.50	.221, 0	.164, 0	.324, 0	.216, 0
1.55	.231, 0	.171, 0	.338, 0	.226, 0
1.60	.167, 0	.124, 0	.244, 0	.163, 0
1.65	.129, 0	.954, -1	.188, 0	.126, 0
1.70	.136, 0	.101, 0	.199, 0	.133, 0
1.75	.132, 0	.977, -1	.193, 0	.129, 0
1.80	.112, 0	.828, -1	.163, 0	.109, 0
1.85	.659, -1	.489, -1	.964, -1	.644, -1
1.90	.700, -1	.519, -1	.102, 0	.684, -1
1.95	.638, -1	.473, -1	.934, -1	.624, -1
2.00	.648, -1	.481, -1	.949, -1	.634, -1
2.05	.525, -1	.389, -1	.768, -1	.513, -1
2.10	.483, -1	.358, -1	.707, -1	.472, -1
2.15	.313, -1	.232, -1	.458, -1	.306, -1
2.20	.491, -1	.364, -1	.719, -1	.480, -1
2.25	.505, -1	.374, -1	.739, -1	.494, -1
2.30	.499, -1	.370, -1	.730, -1	.488, -1
2.35	.413, -1	.306, -1	.605, -1	.404, -1
2.40	.443, -1	.329, -1	.649, -1	.434, -1
2.45	.180, -1	.134, -1	.264, -1	.176, -1
2.50	.115, -1	.850, -2	.168, -1	.112, -1

TABLE AIV 3.14

POWER SPECTRUM

RECORD 076

N = 850 ΔT = 0.2 sec Maximum Lag = 50 Degrees of Freedom = 33

Wind Speed at 1.25m : mean 6.75 m/s σ 1.09 m/s

Wind Direction at 1.83m : mean 325 °T σ 8 °T

Estimated Fetch 3000 m

Air Temperature at 2.25m 9.92 C

Air Temperature at 0.50m 9.86 C

Water Temperature 12.52 C

Frequency (cps)	Power (cm^2 sec)	10% Confidence Limit (cm^2 sec)	90% Confidence Limit (cm^2 sec)	50% Confidence Limit (cm^2 sec)
0.00	.541, 0	.408, 0	.771, 0	.530, 0
0.05	.414, 0	.312, 0	.590, 0	.406, 0
0.10	.194, 0	.146, 0	.277, 0	.191, 0
0.15	.120, 0	.907, -1	.171, 0	.118, 0
0.20	.530, -1	.399, -1	.755, -1	.519, -1
0.25	.633, -1	.477, -1	.901, -1	.620, -1
0.30	.274, -1	.206, -1	.390, -1	.268, -1
0.35	.126, 0	.949, -1	.180, 0	.124, 0
0.40	.741, 0	.558, 0	.106, 1	.726, 0
0.45	.308, 1	.232, 1	.439, 1	.302, 1
0.50	.952, 1	.717, 1	.136, 2	.933, 1
0.55	.160, 2	.120, 2	.228, 2	.157, 2
0.60	.125, 2	.938, 1	.177, 2	.122, 2
0.65	.643, 1	.484, 1	.916, 1	.630, 1
0.70	.347, 1	.261, 1	.495, 1	.340, 1
0.75	.347, 1	.261, 1	.494, 1	.340, 1
0.80	.368, 1	.277, 1	.524, 1	.360, 1
0.85	.230, 1	.173, 1	.328, 1	.225, 1
0.90	.156, 1	.117, 1	.222, 1	.153, 1
0.95	.119, 1	.895, 0	.169, 1	.116, 1
1.00	.103, 1	.779, 0	.147, 1	.101, 1
1.05	.102, 1	.771, 0	.146, 1	.100, 1
1.10	.947, 0	.713, 0	.135, 1	.928, 0
1.15	.725, 0	.546, 0	.103, 1	.711, 0
1.20	.530, 0	.399, 0	.755, 0	.519, 0

TABLE A IV 3.14

(continued)

Frequency (cps)	Power (cm^2 sec)	10% Confidence Limit (cm^2 sec)	90% Confidence Limit (cm^2 sec)	50% Confidence Limit (cm^2 sec)
1.25	.592, 0	.446, 0	.843, 0	.580, 0
1.30	.725, 0	.546, 0	.103, 1	.711, 0
1.35	.525, 0	.395, 0	.748, 0	.514, 0
1.40	.332, 0	.250, 0	.473, 0	.325, 0
1.45	.267, 0	.201, 0	.380, 0	.262, 0
1.50	.253, 0	.190, 0	.360, 0	.248, 0
1.55	.203, 0	.153, 0	.289, 0	.199, 0
1.60	.145, 0	.109, 0	.207, 0	.142, 0
1.65	.133, 0	.999, -1	.189, 0	.130, 0
1.70	.112, 0	.841, -1	.159, 0	.109, 0
1.75	.839, -1	.631, -1	.119, 0	.822, -1
1.80	.705, -1	.531, -1	.100, 0	.691, -1
1.85	.405, -1	.305, -1	.577, -1	.397, -1
1.90	.415, -1	.312, -1	.591, -1	.406, -1
1.95	.540, -1	.407, -1	.770, -1	.529, -1
2.00	.607, -1	.457, -1	.865, -1	.595, -1
2.05	.441, -1	.332, -1	.629, -1	.433, -1
2.10	.476, -1	.358, -1	.678, -1	.466, -1
2.15	.415, -1	.312, -1	.591, -1	.406, -1
2.20	.419, -1	.316, -1	.597, -1	.411, -1
2.25	.356, -1	.268, -1	.507, -1	.349, -1
2.30	.370, -1	.279, -1	.528, -1	.363, -1
2.35	.349, -1	.263, -1	.498, -1	.342, -1
2.40	.334, -1	.252, -1	.476, -1	.328, -1
2.45	.198, -1	.149, -1	.281, -1	.194, -1
2.50	.141, -1	.106, -1	.200, -1	.138, -1

POWER SPECTRUM

RECORD 081

N = 750 ΔT = 0.2 sec Maximum Lag = 50 Degrees of Freedom = 29

Wind Speed at 1.25m : mean 6.78 m/s σ 1.17 m/s

Wind Direction at 1.83m : mean 326 °T σ 8 °T

Estimated Fetch 30 00 m

Air Temperature at 2.25m 1042 C

Air Temperature at 0.50m 1046 C

Water Temperature 12.69 C

Frequency (cps)	Power (cm^2 sec)	10% Confidence Limit (cm^2 sec)	90% Confidence Limit (cm^2 sec)	50% Confidence Limit (cm^2 sec)
0.00	.212, 1	.158, 1	.311, 1	.208, 1
0.05	.123, 1	.912, 0	.180, 1	.120, 1
0.10	.333, 0	.247, 0	.487, 0	.326, 0
0.15	.123, 0	.912, -1	.180, 0	.120, 0
0.20	.421, -1	.313, -1	.617, -1	.412, -1
0.25	.264, -1	.196, -1	.386, -1	.258, -1
0.30	.268, -1	.199, -1	.392, -1	.262, -1
0.35	.478, -1	.355, -1	.700, -1	.467, -1
0.40	.895, -1	.664, -1	.131, 0	.875, -1
0.45	.161, 0	.119, 0	.235, 0	.157, 0
0.50	.695, 0	.515, 0	.102, 1	.679, 0
0.55	.276, 1	.205, 1	.404, 1	.270, 1
0.60	.525, 1	.389, 1	.768, 1	.513, 1
0.65	.502, 1	.372, 1	.734, 1	.491, 1
0.70	.360, 1	.267, 1	.527, 1	.352, 1
0.75	.272, 1	.202, 1	.398, 1	.266, 1
0.80	.180, 1	.134, 1	.264, 1	.176, 1
0.85	.111, 1	.821, 0	.162, 1	.108, 1
0.90	.767, 0	.569, 0	.112, 1	.750, 0
0.95	.602, 0	.447, 0	.881, 0	.589, 0
1.00	.725, 0	.538, 0	.106, 1	.709, 0
1.05	.633, 0	.469, 0	.926, 0	.619, 0
1.10	.561, 0	.416, 0	.821, 0	.548, 0
1.15	.545, 0	.405, 0	.798, 0	.533, 0
1.20	.330, 0	.245, 0	.483, 0	.323, 0

TABLE AIV 3.15

(continued)

Frequency (cps)	Power (cm^2 sec)	10% Confidence Limit (cm^2 sec)	90% Confidence Limit (cm^2 sec)	50% Confidence Limit (cm^2 sec)
1.25	.227, 0	.168, 0	.332, 0	.222, 0
1.30	.296, 0	.219, 0	.433, 0	.289, 0
1.35	.404, 0	.300, 0	.592, 0	.395, 0
1.40	.332, 0	.247, 0	.487, 0	.325, 0
1.45	.153, 0	.113, 0	.224, 0	.149, 0
1.50	.152, 0	.113, 0	.222, 0	.148, 0
1.55	.166, 0	.123, 0	.243, 0	.163, 0
1.60	.137, 0	.102, 0	.200, 0	.134, 0
1.65	.103, 0	.763, -1	.151, 0	.101, 0
1.70	.977, -1	.725, -1	.143, 0	.956, -1
1.75	.772, -1	.572, -1	.113, 0	.755, -1
1.80	.592, -1	.439, -1	.866, -1	.579, -1
1.85	.720, -1	.534, -1	.105, 0	.704, -1
1.90	.823, -1	.611, -1	.121, 0	.805, -1
1.95	.477, -1	.354, -1	.698, -1	.466, -1
2.00	.368, -1	.273, -1	.539, -1	.360, -1
2.05	.306, -1	.227, -1	.448, -1	.299, -1
2.10	.365, -1	.271, -1	.535, -1	.357, -1
2.15	.332, -1	.247, -1	.487, -1	.325, -1
2.20	.257, -1	.190, -1	.376, -1	.251, -1
2.25	.211, -1	.157, -1	.310, -1	.207, -1
2.30	.181, -1	.134, -1	.264, -1	.177, -1
2.35	.208, -1	.154, -1	.304, -1	.203, -1
2.40	.247, -1	.184, -1	.362, -1	.242, -1
2.45	.172, -1	.127, -1	.252, -1	.168, -1
2.50	.130, -1	.965, -2	.191, -1	.127, -1

TABLE AIV 3.16

POWER SPECTRUM

RECORD 082

N = 888 ΔT = 0.2 sec Maximum Lag = 50 Degrees of Freedom = 35

Wind Speed at 1.25m: mean 6.78 m/s σ 1.17 m/s

Wind Direction at 1.83m: mean 326 °T σ 8 °T

Estimated Fetch 3000 m

Air Temperature at 2.25m 10.42 C

Air Temperature at 0.50m 10.46 C

Water Temperature 12.69 C

Frequency (cps)	Power (cm^2 sec)	10% Confidence Limit (cm^2 sec)	90% Confidence Limit (cm^2 sec)	50% Confidence Limit (cm^2 sec)
0.00	.173, 1	.131, 1	.244, 1	.170, 1
0.05	.101, 1	.764, 0	.142, 1	.102, 1
0.10	.270, 0	.205, 0	.380, 0	.265, 0
0.15	.540, -1	.409, -1	.761, -1	.529, -1
0.20	.313, -1	.237, -1	.441, -1	.307, -1
0.25	.628, -2	.475, -2	.884, -2	.615, -2
0.30	.352, -1	.267, -1	.496, -1	.345, -1
0.35	.102, -1	.776, -2	.144, -1	.100, -1
0.40	.525, -1	.398, -1	.739, -1	.514, -1
0.45	.111, 0	.842, -1	.157, 0	.109, 0
0.50	.510, 0	.387, 0	.719, 0	.500, 0
0.55	.188, 1	.143, 1	.265, 1	.185, 1
0.60	.474, 1	.359, 1	.667, 1	.464, 1
0.65	.581, 1	.440, 1	.819, 1	.570, 1
0.70	.436, 1	.330, 1	.614, 1	.427, 1
0.75	.315, 1	.239, 1	.443, 1	.309, 1
0.80	.257, 1	.194, 1	.362, 1	.252, 1
0.85	.190, 1	.144, 1	.267, 1	.186, 1
0.90	.109, 1	.822, 0	.153, 1	.106, 1
0.95	.936, 0	.709, 0	.132, 1	.918, 0
1.00	.952, 0	.721, 0	.134, 1	.933, 0
1.05	.839, 0	.635, 0	.118, 1	.822, 0
1.10	.520, 0	.394, 0	.732, 0	.509, 0
1.15	.382, 0	.289, 0	.538, 0	.374, 0
1.20	.314, 0	.238, 0	.443, 0	.308, 0

TABLE AIV 3.16

(continued)

Frequency (cps)	Power (cm^2 sec)	10% Confidence Limit (cm^2 sec)	90% Confidence Limit (cm^2 sec)	50% Confidence Limit (cm^2 sec)
1.25	.280, 0	.212, 0	.394, 0	.274, 0
1.30	.285, 0	.216, 0	.401, 0	.279, 0
1.35	.297, 0	.225, 0	.418, 0	.291, 0
1.40	.245, 0	.186, 0	.345, 0	.240, 0
1.45	.212, 0	.161, 0	.299, 0	.208, 0
1.50	.174, 0	.132, 0	.245, 0	.170, 0
1.55	.151, 0	.114, 0	.212, 0	.148, 0
1.60	.113, 0	.857, -1	.159, 0	.111, 0
1.65	.105, 0	.795, -1	.148, 0	.103, 0
1.70	.787, -1	.596, -1	.111, 0	.771, -1
1.75	.864, -1	.655, -1	.122, 0	.847, -1
1.80	.967, -1	.733, -1	.136, 0	.948, -1
1.85	.761, -1	.577, -1	.107, 0	.746, -1
1.90	.449, -1	.340, -1	.633, -1	.440, -1
1.95	.443, -1	.336, -1	.624, -1	.434, -1
2.00	.344, -1	.260, -1	.484, -1	.337, -1
2.05	.310, -1	.235, -1	.437, -1	.304, -1
2.10	.237, -1	.179, -1	.333, -1	.232, -1
2.15	.410, -1	.311, -1	.578, -1	.402, -1
2.20	.381, -1	.288, -1	.536, -1	.373, -1
2.25	.372, -1	.282, -1	.524, -1	.365, -1
2.30	.282, -1	.214, -1	.397, -1	.276, -1
2.35	.305, -1	.231, -1	.430, -1	.299, -1
2.40	.293, -1	.222, -1	.412, -1	.287, -1
2.45	.313, -1	.237, -1	.441, -1	.307, -1
2.50	.248, -1	.188, -1	.350, -1	.243, -1

TABLE AIV 3.17

POWER SPECTRUM

RECORD 083.

N = 750 ΔT = 0.2 sec Maximum Lag = 50 Degrees of Freedom = 29

Wind Speed at 1.25m mean 7.77 m/s σ 1.16 m/s

Wind Direction at 1.83m mean 314 °T σ 12 °T

Estimated Fetch 2700 m

Air Temperature at 2.25m 10.76 C

Air Temperature at 0.50m 10.61 C

Water Temperature 12.72 C

Frequency (cps)	Power (cm^2 sec)	10% Confidence Limit (cm^2 sec)	90% Confidence Limit (cm^2 sec)	50% Confidence Limit (cm^2 sec)
0.00	.662, 1	.491, 1	.970, 1	.648, 1
0.05	.342, 1	.253, 1	.500, 1	.334, 1
0.10	.433, 0	.321, 0	.633, 0	.423, 0
0.15	.139, 0	.103, 0	.204, 0	.136, 0
0.20	.276, -1	.205, -1	.404, -1	.270, -1
0.25	.941, -1	.698, -1	.138, 0	.921, -1
0.30	-.247, -2	-.184, -2	-.362, -2	-.242, -2
0.35	.114, 0	.843, -1	.166, 0	.111, 0
0.40	.269, 0	.200, 0	.394, 0	.263, 0
0.45	.110, 1	.817, 0	.161, 1	.108, 1
0.50	.508, 1	.377, 1	.744, 1	.497, 1
0.55	.146, 2	.108, 2	.213, 2	.142, 2
0.60	.149, 2	.110, 2	.218, 2	.145, 2
0.65	.617, 1	.458, 1	.904, 1	.604, 1
0.70	.339, 1	.252, 1	.496, 1	.332, 1
1.75	.340, 1	.252, 1	.498, 1	.333, 1
0.80	.318, 1	.236, 1	.466, 1	.311, 1
0.85	.254, 1	.188, 1	.371, 1	.248, 1
0.90	.183, 1	.135, 1	.267, 1	.179, 1
0.95	.134, 1	.992, 0	.196, 1	.131, 1
1.00	.782, 0	.580, 0	.114, 1	.765, 0
1.05	.469, 0	.348, 0	.686, 0	.458, 0
1.10	.511, 0	.379, 0	.749, 0	.500, 0
1.15	.460, 0	.342, 0	.674, 0	.450, 0
1.20	.371, 0	.275, 0	.543, 0	.363, 0

TABLE. A IV 3.17

(continued)

Frequency (cps)	Power (cm^2 sec)	10% Confidence Limit (cm^2 sec)	90% Confidence Limit (cm^2 sec)	50% Confidence Limit (cm^2 sec)
1.25	.253, 0	.187, 0	.370, 0	.247, 0
1.30	.236, 0	.175, 0	.345, 0	.230, 0
1.35	.198, 0	.147, 0	.289, 0	.193, 0
1.40	.208, 0	.155, 0	.305, 0	.204, 0
1.45	.195, 0	.145, 0	.285, 0	.191, 0
1.50	.160, 0	.119, 0	.234, 0	.156, 0
1.55	.143, 0	.106, 0	.209, 0	.140, 0
1.60	.151, 0	.112, 0	.221, 0	.148, 0
1.65	.123, 0	.916, -1	.181, 0	.121, 0
1.70	.859, -1	.637, -1	.126, 0	.840, -1
1.75	.633, -1	.469, -1	.926, -1	.619, -1
1.80	.653, -1	.485, -1	.957, -1	.639, -1
1.85	.421, -1	.312, -1	.616, -1	.412, -1
1.90	.628, -1	.466, -1	.919, -1	.614, -1
1.95	.561, -1	.416, -1	.821, -1	.548, -1
2.00	.483, -1	.358, -1	.707, -1	.472, -1
2.05	.457, -1	.339, -1	.669, -1	.447, -1
2.10	.720, -1	.534, -1	.105, -1	.704, -1
2.15	.450, -1	.334, -1	.658, -1	.440, -1
2.20	.417, -1	.309, -1	.610, -1	.408, -1
2.25	.444, -1	.329, -1	.650, -1	.434, -1
2.30	.597, -1	.443, -1	.874, -1	.584, -1
2.35	.422, -1	.313, -1	.618, -1	.413, -1
2.40	.326, -1	.242, -1	.477, -1	.318, -1
2.45	.125, -1	.927, -2	.183, -1	.122, -1
2.50	.104, -1	.775, -2	.153, -1	.102, -1

TABLE A IV 3.18

POWER SPECTRUM

RECORD 084

N = 566 ΔT = 0.2 sec Maximum Lag = 50 Degrees of Freedom = 22

Wind Speed at 1.25m : mean 7.77 m/s σ 1.16 m/s

Wind Direction at 1.83m : mean 314 °T σ 12 °T

Estimated Fetch 2700 m

Air Temperature at 2.25m 10.76 C

Air Temperature at 0.50m 10.61 C

Water Temperature 12.72 C

Frequency (cps)	Power (cm^2 sec)	10% Confidence Limit (cm^2 sec)	90% Confidence Limit (cm^2 sec)	50% Confidence Limit (cm^2 sec)
0.00	.321, 1	.229, 1	.506, 1	.309, 1
0.05	.209, 1	.149, 1	.330, 1	.202, 1
0.10	.612, 0	.436, 0	.966, 0	.590, 0
0.15	.792, -1	.564, -1	.125, 0	.764, -1
0.20	.751, -1	.535, -1	.118, 0	.724, -1
0.25	.586, -1	.418, -1	.925, -1	.565, -1
0.30	.890, -1	.634, -1	.140, 0	.858, -1
0.35	.751, -1	.535, -1	.118, 0	.724, -1
0.40	.322, 0	.229, 0	.507, 0	.310, 0
0.45	.199, 1	.142, 1	.314, 1	.192, 1
0.50	.607, 1	.432, 1	.958, 1	.585, 1
0.55	.669, 1	.476, 1	.105, 2	.645, 1
0.60	.633, 1	.451, 1	.998, 1	.610, 1
0.65	.885, 1	.630, 1	.140, 2	.853, 1
0.70	.777, 1	.553, 1	.123, 2	.749, 1
0.75	.474, 1	.337, 1	.747, 1	.457, 1
0.80	.381, 1	.271, 1	.600, 1	.367, 1
0.85	.266, 1	.189, 1	.420, 1	.256, 1
0.90	.209, 1	.149, 1	.329, 1	.201, 1
0.95	.177, 1	.126, 1	.279, 1	.171, 1
1.00	.117, 1	.835, 0	.185, 1	.113, 1
1.05	.941, 0	.671, 0	.148, 1	.908, 0
1.10	.787, 0	.561, 0	.124, 1	.759, 0
1.15	.530, 0	.377, 0	.836, 0	.511, 0
1.20	.359, 0	.255, 0	.566, 0	.346, 0

TABLE AIV 3.18

(continued)

Frequency (cps)	Power (cm^2 sec)	10% Confidence Limit (cm^2 sec)	90% Confidence Limit (cm^2 sec)	50% Confidence Limit (cm^2 sec)
1.25	.378, 0	.269, 0	.596, 0	.364, 0
1.30	.310, 0	.221, 0	.489, 0	.299, 0
1.35	.228, 0	.162, 0	.359, 0	.220, 0
1.40	.144, 0	.103, 0	.227, 0	.139, 0
1.45	.117, 0	.832, -1	.184, 0	.113, 0
1.50	.998, -1	.711, -1	.157, 0	.962, -1
1.55	.156, 0	.111, 0	.247, 0	.151, 0
1.60	.165, 0	.117, 0	.260, 0	.159, 0
1.65	.118, 0	.843, -1	.187, 0	.114, 0
1.70	.911, -1	.649, -1	.144, 0	.878, -1
1.75	.107, 0	.762, -1	.169, 0	.103, 0
1.80	.720, -1	.513, -1	.114, 0	.694, -1
1.85	.511, -1	.364, -1	.807, -1	.493, -1
1.90	.746, -1	.531, -1	.118, 0	.719, -1
1.95	.803, -1	.572, -1	.127, 0	.774, -1
2.00	.653, -1	.465, -1	.103, 0	.630, -1
2.05	.741, -1	.528, -1	.117, 0	.714, -1
2.10	.501, -1	.357, -1	.790, -1	.483, -1
2.15	.399, -1	.284, -1	.630, -1	.385, -1
2.20	.408, -1	.291, -1	.644, -1	.394, -1
2.25	.420, -1	.299, -1	.662, -1	.405, -1
2.30	.310, -1	.221, -1	.489, -1	.299, -1
2.35	.525, -1	.374, -1	.828, -1	.506, -1
2.40	.597, -1	.425, -1	.941, -1	.575, -1
2.45	.451, -1	.321, -1	.712, -1	.435, -1
2.50	.248, -1	.176, -1	.390, -1	.239, -1

TABLE AIV 3.19

POWER SPECTRUM

RECORD 085

N = 750 ΔT = 0.2 sec Maximum Lag = 50 Degrees of Freedom = 29

Wind Speed at 1.25m: mean 7.87 m/s σ 1.31 m/s

Wind Direction at 1.83m: mean 308 °T σ 9 °T

Estimated Fetch 2800 m

Air Temperature at 2.25m 10.53 C

Air Temperature at 0.50m 8.99 C

Water Temperature 12.70 C

Frequency (cps)	Power (cm^2 sec)	10% Confidence Limit (cm^2 sec)	90% Confidence Limit (cm^2 sec)	50% Confidence Limit (cm^2 sec)
0.00	.496, 1	.368, 1	.726, 1	.485, 1
0.05	.274, 1	.203, 1	.401, 1	.268, 1
0.10	.535, 0	.397, 0	.783, 0	.523, 0
0.15	.823, -1	.611, -1	.121, 0	.805, -1
0.20	.409, -1	.303, -1	.599, -1	.400, -1
0.25	-.116, -1	-.863, -2	-.170, -1	-.114, -1
0.30	.367, -1	.273, -1	.538, -1	.359, -1
0.35	.110, -1	.817, -2	.161, -1	.108, -1
0.40	.327, 0	.242, 0	.478, 0	.320, 0
0.45	.209, 1	.155, 1	.307, 1	.205, 1
0.50	.916, 1	.679, 1	.134, 2	.896, 1
0.55	.162, 2	.120, 2	.237, 2	.158, 2
0.60	.128, 2	.950, 1	.188, 2	.125, 2
0.65	.756, 1	.561, 1	.111, 2	.740, 1
0.70	.451, 1	.334, 1	.660, 1	.441, 1
0.75	.363, 1	.269, 1	.532, 1	.355, 1
0.80	.291, 1	.216, 1	.426, 1	.284, 1
0.85	.185, 1	.137, 1	.270, 1	.181, 1
0.90	.117, 1	.870, 0	.172, 1	.115, 1
0.95	.926, 0	.687, 0	.136, 1	.906, 0
1.00	.895, 0	.664, 0	.131, 1	.875, 0
1.05	.880, 0	.653, 0	.129, 1	.860, 0
1.10	.756, 0	.561, 0	.111, 1	.740, 0
1.15	.720, 0	.534, 0	.105, 1	.704, 0
1.20	.460, 0	.341, 0	.673, 0	.450, 0

TABLE AIV 3.19

(continued)

Frequency (cps)	Power (cm^2 sec)	10% Confidence Limit (cm^2 sec)	90% Confidence Limit (cm^2 sec)	50% Confidence Limit (cm^2 sec)
1.25	.301, 0	.224, 0	.441, 0	.295, 0
1.30	.270, 0	.200, 0	.395, 0	.264, 0
1.35	.235, 0	.174, 0	.343, 0	.229, 0
1.40	.179, 0	.132, 0	.261, 0	.175, 0
1.45	.200, 0	.148, 0	.293, 0	.196, 0
1.50	.166, 0	.123, 0	.243, 0	.163, 0
1.55	.145, 0	.107, 0	.212, 0	.141, 0
1.60	.972, -1	.721, -1	.142, 0	.951, -1
1.65	.936, -1	.695, -1	.137, 0	.916, -1
1.70	.761, -1	.565, -1	.111, 0	.745, -1
1.75	.818, -1	.607, -1	.120, 0	.800, -1
1.80	.926, -1	.687, -1	.136, 0	.906, -1
1.85	.880, -1	.653, -1	.129, 0	.860, -1
1.90	.659, -1	.489, -1	.964, -1	.644, -1
1.95	.571, -1	.424, -1	.836, -1	.558, -1
2.00	.316, -1	.234, -1	.462, -1	.309, -1
2.05	.281, -1	.209, -1	.412, -1	.275, -1
2.10	.266, -1	.197, -1	.389, -1	.260, -1
2.15	.369, -1	.274, -1	.540, -1	.361, -1
2.20	.283, -1	.210, -1	.415, -1	.277, -1
2.25	.361, -1	.268, -1	.529, -1	.353, -1
2.30	.327, -1	.242, -1	.478, -1	.320, -1
2.35	.313, -1	.232, -1	.459, -1	.306, -1
2.40	.170, -1	.126, -1	.249, -1	.167, -1
2.45	.288, -1	.213, -1	.421, -1	.281, -1
2.50	.290, -1	.215, -1	.425, -1	.284, -1

TABLE AIV 3.20

POWER SPECTRUM

RECORD 086

N = 870 ΔT = 0.2 sec Maximum Lag = 50 Degrees of Freedom = 34

Wind Speed at 1.25m: mean 7.87 m/s σ 1.31 m/s

Wind Direction at 1.83m: mean 308 °T σ 9 °T

Estimated Fetch 2800 m

Air Temperature at 2.25m 10.53 C

Air Temperature at 0.50m 8.99 C

Water Temperature 12.70 C

Frequency (cps)	Power (cm^2 sec)	10% Confidence Limit (cm^2 sec)	90% Confidence Limit (cm^2 sec)	50% Confidence Limit (cm^2 sec)
0.00	.150, 1	.114, 1	.213, 1	.147, 1
0.05	.116, 1	.874, 0	.164, 1	.113, 1
0.10	.489, 0	.369, 0	.692, 0	.479, 0
0.15	.457, -1	.345, -1	.647, -1	.448, -1
0.20	.485, -1	.366, -1	.687, -1	.475, -1
0.25	-.162, -1	-.122, -1	-.229, -1	-.158, -1
0.30	.298, -1	.225, -1	.423, -1	.292, -1
0.35	-.181, -2	-.137, -2	-.257, -2	-.177, -2
0.40	.384, 0	.290, 0	.544, 0	.376, 0
0.45	.309, 1	.233, 1	.437, 1	.303, 1
0.50	.122, 2	.925, 1	.173, 2	.120, 2
0.55	.193, 2	.146, 2	.273, 2	.189, 2
0.60	.144, 2	.109, 2	.204, 2	.141, 2
0.65	.623, 1	.470, 1	.882, 1	.610, 1
0.70	.393, 1	.296, 1	.556, 1	.385, 1
0.75	.386, 1	.291, 1	.547, 1	.378, 1
0.80	.192, 1	.145, 1	.272, 1	.188, 1
0.85	.112, 1	.843, 0	.158, 1	.109, 1
0.90	.104, 1	.789, 0	.148, 1	.102, 1
0.95	.113, 1	.851, 0	.160, 1	.110, 1
1.00	.890, 0	.672, 0	.126, 1	.872, 0
1.05	.545, 0	.412, 0	.772, 0	.534, 0
0.10	.413, 0	.312, 0	.584, 0	.404, 0
1.15	.390, 0	.295, 0	.552, 0	.382, 0
1.20	.433, 0	.327, 0	.613, 0	.424, 0

TABLE A IV 3.20

(continued)

Frequency (cps)	Power (cm^2 sec)	10% Confidence Limit (cm^2 sec)	90% Confidence Limit (cm^2 sec)	50% Confidence Limit (cm^2 sec)
1.25	.456, 0	.344, 0	.646, 0	.447, 0
1.30	.269, 0	.203, 0	.381, 0	.264, 0
1.35	.162, 0	.122, 0	.229, 0	.158, 0
1.40	.197, 0	.148, 0	.278, 0	.193, 0
1.45	.208, 0	.157, 0	.294, 0	.204, 0
1.50	.144, 0	.108, 0	.203, 0	.141, 0
1.55	.123, 0	.929, -1	.174, 0	.120, 0
1.60	.124, 0	.936, -1	.176, 0	.122, 0
1.65	.128, 0	.964, -1	.181, 0	.125, 0
1.70	.859, -1	.649, -1	.122, 0	.842, -1
1.75	.530, -1	.400, -1	.751, -1	.519, -1
1.80	.561, -1	.424, -1	.794, -1	.550, -1
1.85	.612, -1	.462, -1	.867, -1	.600, -1
1.90	.365, -1	.276, -1	.517, -1	.358, -1
1.95	.500, -1	.378, -1	.708, -1	.490, -1
2.00	.520, -1	.392, -1	.736, -1	.509, -1
2.05	.509, -1	.385, -1	.721, -1	.499, -1
2.10	.467, -1	.352, -1	.661, -1	.457, -1
2.15	.448, -1	.338, -1	.635, -1	.439, -1
2.20	.271, -1	.205, -1	.384, -1	.266, -1
2.25	.246, -1	.186, -1	.349, -1	.242, -1
2.30	.228, -1	.172, -1	.323, -1	.223, -1
2.35	.363, -1	.274, -1	.514, -1	.355, -1
2.40	.378, -1	.286, -1	.536, -1	.371, -1
2.45	.321, -1	.242, -1	.455, -1	.315, -1
2.50	.179, -1	.135, -1	.253, -1	.175, -1

TABLE A IV 3.21

POWER SPECTRUM

RECORD 087

N = 750 ΔT = 0.2 sec Maximum Lag = 50 Degrees of Freedom = 29

Wind Speed at 1.25m mean 7.21 m/s σ 1.45 m/s
Wind Direction at 1.83m mean 302 °T σ 8 °T

Estimated Fetch 2300 m
Air Temperature at 2.25m 10.89 C
Air Temperature at 0.50m 10.56 C
Water Temperature 12.79 C

Frequency (cps)	Power (cm^2 sec)	10% Confidence Limit (cm^2 sec)	90% Confidence Limit (cm^2 sec)	50% Confidence Limit (cm^2 sec)
0.00	.191, 1	.142, 1	.280, 1	.187, 1
0.05	.295, 2	.219, 2	.432, 2	.289, 2
0.10	.756, 1	.561, 1	.111, 2	.740, 1
0.15	.202, 1	.150, 1	.295, 1	.197, 1
0.20	.111, 1	.824, 0	.163, 1	.109, 1
0.25	.684, 0	.508, 0	.100, 1	.669, 0
0.30	.576, 0	.427, 0	.844, 0	.564, 0
0.35	.736, 0	.546, 0	.108, 1	.720, 0
0.40	.648, 0	.481, 0	.949, 0	.634, 0
0.45	.664, 0	.492, 0	.972, 0	.649, 0
0.50	.839, 0	.622, 0	.123, 1	.820, 0
0.55	.122, 1	.905, 0	.179, 1	.119, 1
0.60	.172, 1	.127, 1	.252, 1	.168, 1
0.65	.267, 1	.198, 1	.391, 1	.261, 1
0.70	.280, 1	.208, 1	.411, 1	.274, 1
0.75	.280, 1	.208, 1	.411, 1	.274, 1
0.80	.314, 1	.233, 1	.459, 1	.307, 1
0.85	.225, 1	.167, 1	.329, 1	.220, 1
0.90	.218, 1	.161, 1	.319, 1	.213, 1
0.95	.164, 1	.121, 1	.240, 1	.160, 1
1.00	.102, 1	.756, 0	.149, 1	.996, 0
1.05	.106, 1	.790, 0	.156, 1	.104, 1
1.10	.772, 0	.572, 0	.113, 1	.755, 0
1.15	.482, 0	.358, 0	.706, 0	.471, 0
1.20	.460, 0	.342, 0	.674, 0	.450, 0

TABLE A IV 3.21

(continued)

Frequency (cps)	Power (cm^2 sec)	10% Confidence Limit (cm^2 sec)	90% Confidence Limit (cm^2 sec)	50% Confidence Limit (cm^2 sec)
1.25	.486, 0	.361, 0	.712, 0	.475, 0
1.30	.346, 0	.256, 0	.506, 0	.338, 0
1.35	.223, 0	.165, 0	.326, 0	.218, 0
1.40	.218, 0	.161, 0	.319, 0	.213, 0
1.45	.229, 0	.170, 0	.336, 0	.224, 0
1.50	.234, 0	.173, 0	.342, 0	.228, 0
1.55	.257, 0	.190, 0	.376, 0	.251, 0
1.60	.221, 0	.164, 0	.323, 0	.216, 0
1.65	.206, 0	.153, 0	.302, 0	.202, 0
1.70	.159, 0	.118, 0	.233, 0	.155, 0
1.75	.147, 0	.109, 0	.215, 0	.144, 0
1.80	.159, 0	.118, 0	.233, 0	.155, 0
1.85	.132, 0	.981, -1	.194, 0	.129, 0
1.90	.972, -1	.721, -1	.142, 0	.951, -1
1.95	.803, -1	.595, -1	.118, 0	.785, -1
2.00	.947, -1	.702, -1	.139, 0	.926, -1
2.05	.106, 0	.786, -1	.155, 0	.104, 0
2.10	.104, 0	.775, -1	.153, 0	.102, 0
2.15	.797, -1	.592, -1	.117, 0	.780, -1
2.20	.633, -1	.469, -1	.926, -1	.619, -1
2.25	.880, -1	.653, -1	.129, 0	.860, -1
2.30	.839, -1	.622, -1	.123, 0	.820, -1
2.35	.705, -1	.523, -1	.103, 0	.689, -1
2.40	.633, -1	.469, -1	.926, -1	.619, -1
2.45	.346, -1	.257, -1	.507, -1	.339, -1
2.50	.178, -1	.132, -1	.261, -1	.174, -1

TABLE A IV 3.22

POWER SPECTRUM

RECORD 088

N = 870 ΔT = 0.2 sec Maximum Lag = 50 Degrees of Freedom = 34

Wind Speed at 1.25m mean 7.21 m/s σ 1.45 m/s
Wind Direction at 1.83m mean 302 °T σ 8 °T

Estimated Fetch	2300	m
Air Temperature at 2.25m	10.89	C
Air Temperature at 0.50m	10.56	C
Water Temperature	12.79	C

Frequency (cps)	Power (cm^2 sec)	10% Confidence Limit (cm^2 sec)	90% Confidence Limit (cm^2 sec)	50% Confidence Limit (cm^2 sec)
0.00	.275, 1	.208, 1	.390, 1	.270, 1
0.05	.210, 1	.159, 1	.297, 1	.206, 1
0.10	.715, 0	.540, 0	.101, 1	.701, 0
0.15	.121, 0	.913, -1	.171, 0	.118, 0
0.20	.972, -2	.734, -2	.138, -1	.953, -2
0.25	.427, -1	.323, -1	.605, -1	.418, -1
0.30	.337, -2	.255, -2	.478, -2	.331, -2
0.35	.472, -1	.356, -1	.668, -1	.462, -1
0.40	.276, -1	.208, -1	.391, -1	.270, -1
0.45	.216, 0	.163, 0	.305, 0	.211, 0
0.50	.911, 0	.688, 0	.129, 1	.892, 0
0.55	.298, 1	.225, 1	.423, 1	.292, 1
0.60	.498, 1	.376, 1	.705, 1	.488, 1
0.65	.607, 1	.459, 1	.860, 1	.595, 1
0.70	.457, 1	.345, 1	.648, 1	.448, 1
0.75	.273, 1	.206, 1	.387, 1	.268, 1
0.80	.265, 1	.201, 1	.376, 1	.260, 1
0.85	.197, 1	.148, 1	.278, 1	.193, 1
0.90	.108, 1	.812, 0	.152, 1	.105, 1
0.95	.833, 0	.629, 0	.118, 1	.817, 0
1.00	.751, 0	.567, 0	.106, 1	.736, 0
1.05	.581, 0	.439, 0	.823, 0	.570, 0
1.10	.545, 0	.412, 0	.772, 0	.534, 0
1.15	.467, 0	.353, 0	.662, 0	.458, 0
1.20	.462, 0	.349, 0	.654, 0	.453, 0

TABLE AIV 3.22

(continued)

Frequency (cps)	Power (cm^2 sec)	10% Confidence Limit (cm^2 sec)	90% Confidence Limit (cm^2 sec)	50% Confidence Limit (cm^2 sec)
1.25	.395, 0	.298, 0	.559, 0	.387, 0
1.30	.330, 0	.249, 0	.467, 0	.323, 0
1.35	.325, 0	.245, 0	.460, 0	.318, 0
1.40	.313, 0	.237, 0	.444, 0	.307, 0
1.45	.158, 0	.120, 0	.224, 0	.155, 0
1.50	.163, 0	.123, 0	.230, 0	.159, 0
1.55	.213, 0	.161, 0	.302, 0	.209, 0
1.60	.184, 0	.139, 0	.260, 0	.180, 0
1.65	.103, 0	.777, -1	.146, 0	.101, 0
1.70	.880, -1	.664, -1	.125, 0	.862, -1
1.75	.664, -1	.501, -1	.940, -1	.650, -1
1.80	.586, -1	.443, -1	.831, -1	.575, -1
1.85	.530, -1	.400, -1	.751, -1	.519, -1
1.90	.638, -1	.482, -1	.904, -1	.625, -1
1.95	.365, -1	.275, -1	.517, -1	.357, -1
2.00	.306, -1	.231, -1	.433, -1	.299, -1
2.05	.326, -1	.246, -1	.462, -1	.320, -1
2.10	.514, -1	.389, -1	.729, -1	.504, -1
2.15	.374, -1	.282, -1	.529, -1	.366, -1
2.20	.488, -1	.368, -1	.691, -1	.478, -1
2.25	.434, -1	.328, -1	.614, -1	.425, -1
2.30	.361, -1	.272, -1	.511, -1	.353, -1
2.35	.202, -1	.153, -1	.286, -1	.198, -1
2.40	.300, -1	.227, -1	.426, -1	.294, -1
2.45	.205, -1	.155, -1	.290, -1	.201, -1
2.50	.164, -1	.124, -1	.232, -1	.161, -1

TABLE A IV 3.23

POWER SPECTRUM

RECORD 093

N = 750 ΔT = 0.2 sec Maximum Lag = 50 Degrees of Freedom = 29

Wind Speed at 1.25m : mean 8.20 m/s σ 1.00 m/s

Wind Direction at 1.83m : mean 305 °T σ 6 °T

Estimated Fetch	2500	m
Air Temperature at 2.25m	12.02	C
Air Temperature at 0.50m	11.86	C
Water Temperature	12.87	C

Frequency (cps)	Power (cm^2 sec)	10% Confidence Limit (cm^2 sec)	90% Confidence Limit (cm^2 sec)	50% Confidence Limit (cm^2 sec)
0.00	.220, 0	.163, 0	.323, 0	.216, 0
0.05	.219, 0	.162, 0	.320, 0	.214, 0
0.10	.175, 0	.130, 0	.257, 0	.172, 0
0.15	.296, -1	.219, -1	.433, -1	.289, -1
0.20	.502, -1	.372, -1	.734, -1	.491, -1
0.25	.109, -1	.809, -2	.160, -1	.107, -1
0.30	.592, -1	.439, -1	.866, -1	.579, -1
0.35	.189, -1	.140, -1	.276, -1	.185, -1
0.40	.138, 0	.103, 0	.203, 0	.135, 0
0.45	.710, 0	.527, 0	.104, 1	.694, 0
0.50	.307, 1	.227, 1	.449, 1	.300, 1
0.55	.983, 1	.729, 1	.144, 2	.961, 1
0.60	.175, 2	.130, 2	.256, 2	.171, 2
0.65	.156, 2	.116, 2	.229, 2	.153, 2
0.70	.121, 2	.897, 1	.177, 2	.118, 2
0.75	.746, 1	.553, 1	.109, 2	.730, 1
0.80	.378, 1	.280, 1	.553, 1	.369, 1
0.85	.432, 1	.321, 1	.633, 1	.423, 1
0.90	.340, 1	.252, 1	.498, 1	.333, 1
0.95	.222, 1	.164, 1	.325, 1	.217, 1
1.00	.237, 1	.176, 1	.346, 1	.231, 1
1.05	.198, 1	.147, 1	.290, 1	.194, 1
1.10	.731, 0	.542, 0	.107, 1	.714, 0
1.15	.669, 0	.496, 0	.979, 0	.654, 0
1.20	.731, 0	.542, 0	.107, 1	.714, 0

TABLE AIV 3.23

(continued)

Frequency (cps)	Power (cm^2 sec)	10% Confidence Limit (cm^2 sec)	90% Confidence Limit (cm^2 sec)	50% Confidence Limit (cm^2 sec)
1.25	.710, 0	.527, 0	.104, 1	.694, 0
1.30	.633, 0	.469, 0	.926, 0	.619, 0
1.35	.550, 0	.408, 0	.806, 0	.538, 0
1.40	.500, 0	.371, 0	.732, 0	.489, 0
1.45	.407, 0	.302, 0	.596, 0	.398, 0
1.50	.285, 0	.211, 0	.417, 0	.279, 0
1.55	.330, 0	.245, 0	.484, 0	.323, 0
1.60	.228, 0	.169, 0	.334, 0	.223, 0
1.65	.230, 0	.171, 0	.337, 0	.225, 0
1.70	.175, 0	.130, 0	.256, 0	.171, 0
1.75	.218, 0	.161, 0	.319, 0	.213, 0
1.80	.166, 0	.123, 0	.243, 0	.163, 0
1.85	.114, 0	.847, -1	.167, 0	.112, 0
1.90	.141, 0	.105, 0	.207, 0	.138, 0
1.95	.200, 0	.148, 0	.292, 0	.195, 0
2.00	.154, 0	.114, 0	.225, 0	.150, 0
2.05	.130, 0	.962, -1	.190, 0	.127, 0
2.10	.931, -1	.691, -1	.136, 0	.911, -1
2.15	.952, -1	.706, -1	.139, 0	.931, -1
2.20	.869, -1	.645, -1	.127, 0	.850, -1
2.25	.116, 0	.863, -1	.170, 0	.114, 0
2.30	.993, -1	.737, -1	.145, 0	.971, -1
2.35	.972, -1	.721, -1	.142, 0	.951, -1
2.40	.669, -1	.496, -1	.979, -1	.654, -1
2.45	.684, -1	.508, -1	.100, 0	.669, -1
2.50	.556, -1	.412, -1	.814, -1	.544, -1

TABLE AIV 3.24

POWER SPECTRUM

RECORD 094

N = 860 ΔT = 0.2 sec Maximum Lag = 50 Degrees of Freedom = 34

Wind Speed at 1.25m: mean 8.20 m/s σ 1.00 m/s

Wind Direction at 1.83m: mean 305 °T σ 6 °T

Estimated Fetch 2500 m

Air Temperature at 2.25m 12.02 C

Air Temperature at 0.50m 11.86 C

Water Temperature 12.87 C

Frequency (cps)	Power (cm^2 sec)	10% Confidence Limit (cm^2 sec)	90% Confidence Limit (cm^2 sec)	50% Confidence Limit (cm^2 sec)
0.00	.137, 1	.103, 1	.194, 1	.134, 1
0.05	.813, 0	.614, 0	.115, 1	.797, 0
0.10	.204, 0	.154, 0	.289, 0	.200, 0
0.15	.823, -1	.622, -1	.117, 0	.807, -1
0.20	.365, -1	.275, -1	.517, -1	.357, -1
0.25	.823, -1	.622, -1	.117, 0	.807, -1
0.30	.586, -1	.443, -1	.831, -1	.575, -1
0.35	.792, -1	.598, -1	.112, 0	.776, -1
0.40	.149, 0	.112, 0	.211, 0	.146, 0
0.45	.890, 0	.672, 0	.126, 1	.872, 0
0.50	.447, 1	.337, 1	.633, 1	.438, 1
0.55	.135, 2	.102, 2	.191, 2	.132, 2
0.60	.176, 2	.133, 2	.249, 2	.172, 2
0.65	.120, 2	.905, 1	.170, 2	.117, 2
0.70	.112, 2	.847, 1	.159, 2	.110, 2
0.75	.126, 2	.952, 1	.179, 2	.124, 2
0.80	.102, 2	.769, 1	.144, 2	.998, 1
0.85	.684, 1	.517, 1	.969, 1	.671, 1
0.90	.438, 1	.331, 1	.620, 1	.429, 1
0.95	.294, 1	.222, 1	.416, 1	.288, 1
1.00	.208, 1	.157, 1	.295, 1	.204, 1
1.05	.162, 1	.122, 1	.229, 1	.158, 1
1.10	.140, 1	.106, 1	.199, 1	.138, 1
1.15	.133, 1	.101, 1	.189, 1	.131, 1
1.20	.113, 1	.855, 0	.160, 1	.111, 1

TABLE A IV 3.24

(continued)

Frequency (cps)	Power (cm^2 sec)	10% Confidence Limit (cm^2 sec)	90% Confidence Limit (cm^2 sec)	50% Confidence Limit (cm^2 sec)
1.25	.875, 0	.661, 0	.124, 1	.857, 0
1.30	.586, 0	.443, 0	.831, 0	.575, 0
1.35	.457, 0	.345, 0	.648, 0	.448, 0
1.40	.385, 0	.291, 0	.545, 0	.377, 0
1.45	.425, 0	.321, 0	.603, 0	.417, 0
1.50	.388, 0	.293, 0	.549, 0	.380, 0
1.55	.280, 0	.212, 0	.397, 0	.275, 0
1.60	.252, 0	.190, 0	.357, 0	.247, 0
1.65	.253, 0	.191, 0	.358, 0	.248, 0
1.70	.227, 0	.172, 0	.322, 0	.223, 0
1.75	.194, 0	.147, 0	.275, 0	.191, 0
1.80	.173, 0	.131, 0	.246, 0	.170, 0
1.85	.171, 0	.129, 0	.243, 0	.168, 0
1.90	.152, 0	.115, 0	.215, 0	.149, 0
1.95	.103, 0	.781, -1	.146, 0	.101, 0
2.00	.777, -1	.587, -1	.110, 0	.761, -1
2.05	.869, -1	.657, -1	.123, 0	.852, -1
2.10	.864, -1	.653, -1	.122, 0	.847, -1
2.15	.828, -1	.626, -1	.117, 0	.812, -1
2.20	.792, -1	.598, -1	.112, 0	.776, -1
2.25	.921, -1	.696, -1	.130, 0	.902, -1
2.30	.869, -1	.657, -1	.123, 0	.852, -1
2.35	.936, -1	.707, -1	.133, 0	.918, -1
2.40	.864, -1	.653, -1	.122, 0	.847, -1
2.45	.664, -1	.501, -1	.940, -1	.650, -1
2.50	.449, -1	.339, -1	.636, -1	.440, -1

"I ca'n't believe that!" said Alice.

"Ca'n't you?" the Queen said in a pitying tone. "Try again: draw a long breath, and shut your eyes."

Alice laughed. "There's no use trying," she said: "one ca'n't believe impossible things."

"I daresay you haven't had much practice," said the Queen.

Lewis Carroll, Through the Looking-glass